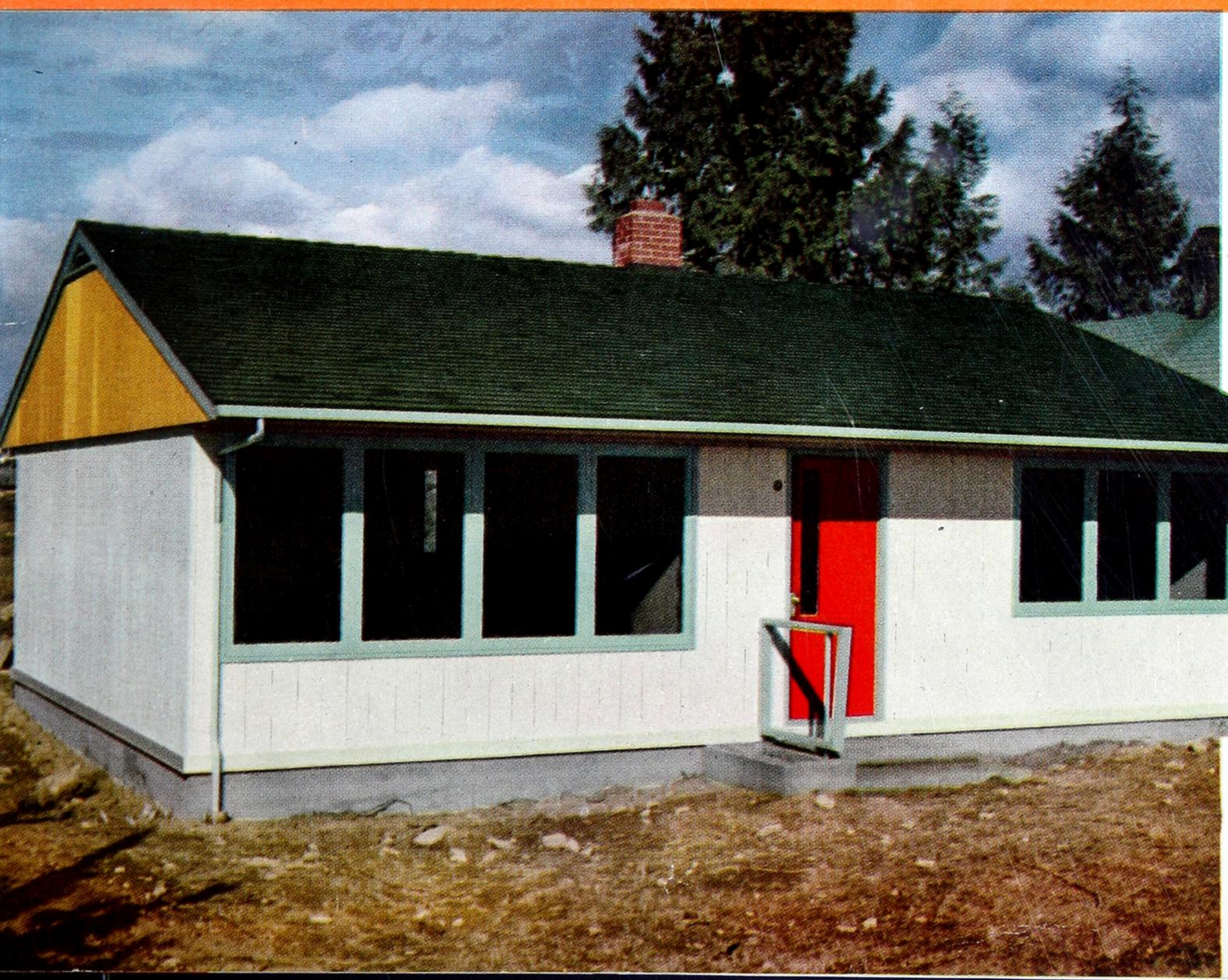
This three-inch solid cedar house was built by four men in 12 working days on a Central Mortgage and Housing Corporation project in Vancouver for a total cost of . . .

$4,500

SOLID CEDAR *Construction*

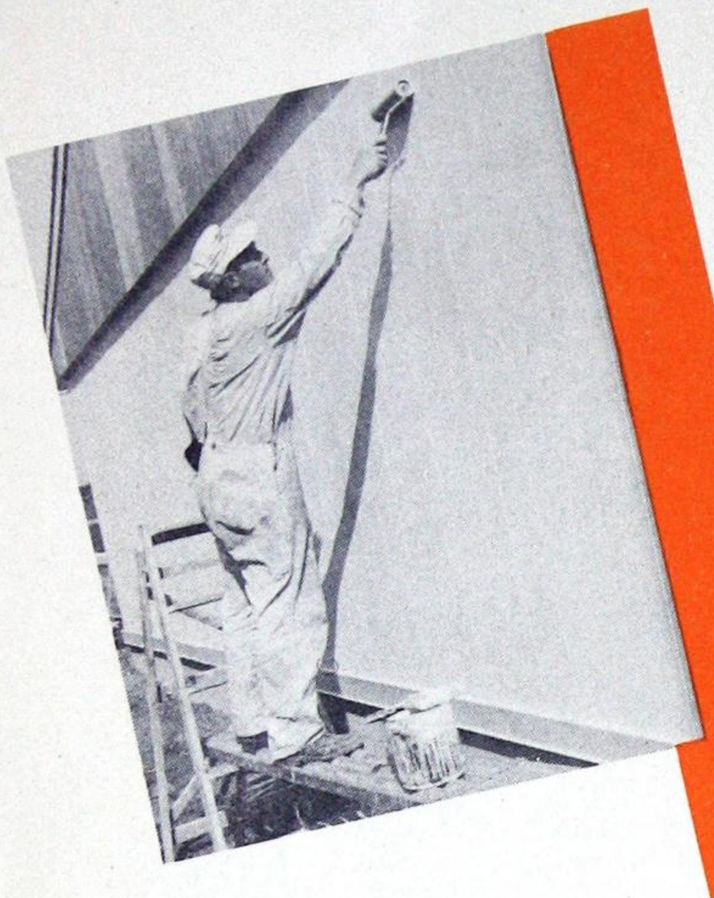


A modification of the plank wall construction principle made it possible for this fully-insulated, four-room house to be completed in 16 working days at a total cost of . . .

$4,800

Photos by Jack Cash

Actual tests now prove . . .
SOLID CEDAR CONSTRUCTION CUTS BUILDING COSTS!



THE physical advantages of Western Red Cedar as a building material—its vigorous resistance to decay, its lightness and strength and, above all, its low shrinkage factor and high insulation value—have long been recognized. From time to time during the past decade far-seeing architects and builders have worked to develop a type of construction which would employ the unique properties of cedar to full economical advantage.

Occasional published reports have indicated favorable results. One report from Hull, England, for example, shows that definite economies were realized on a group of semi-prefabricated, solid cedar duplexes that were completed in eleven days.

Many of the past reports on solid cedar construction have not provided a factual basis for true cost and time comparison with conventional methods of building. But now, in Vancouver, test construction of two solid cedar houses built to standard Central Mortgage and Housing Corporation floor plan specifications proves that solid cedar construction does cut building costs and presents, in addition, several advantages not normally found in conventional houses.

The two experimental houses treated in detail in the following pages were developed by the Vancouver Architectural firm of Semmens and Simpson. The costs given for the houses are from the actual records of W. P. Perkins and Co., under whose supervision a four-man working crew erected both houses in approximately five weeks.

The record is conclusive. On one house the contractor's saving over conventional methods of construction amounts to 16.6% of the total cost of the house. On the other house—a compromise between true solid cedar and conventional construction—the saving is 9.3%.

In addition to saving time and money during construction . . .
SOLID CEDAR GIVES YOU

- **COMFORT**
  Three inches of cedar has insulating qualities equal to 13 inches of ordinary brick or 21 inches of concrete. It also has definite sound-absorption properties.

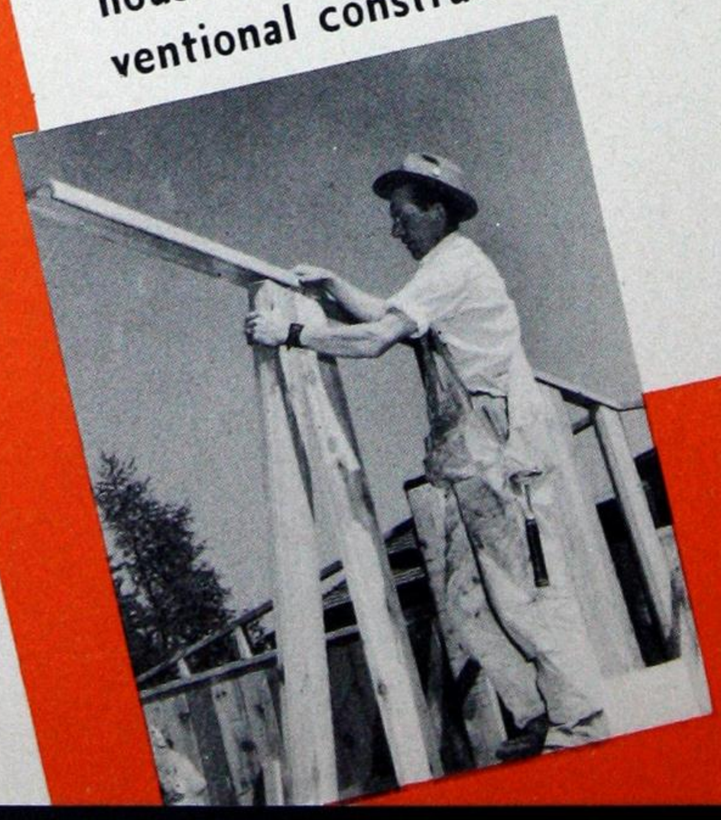
- **SAFETY**
  Tests show that a solid cedar building offers a high degree of resistance to fire and prevents to a large extent the danger of collapse or disintegration.

- **DURABILITY**
  Laboratory tests and actual performance prove that Western Red Cedar has a high durability rating under conditions favorable to decay. Permanency is also achieved because of the substantial solid wall.

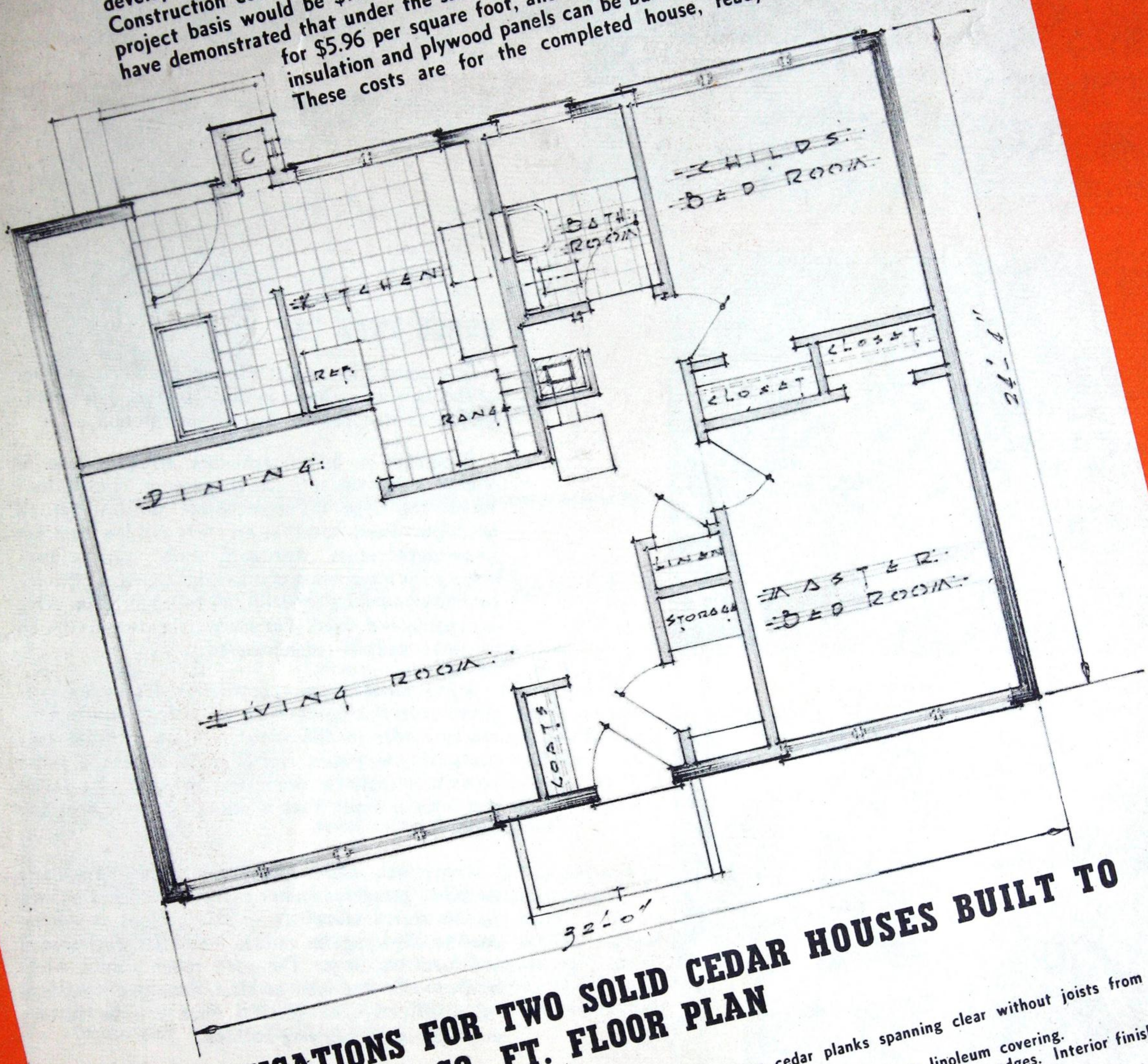
- **FLEXIBILITY**
  Solid cedar construction is readily adaptable to any style of architecture. Enlarging or remodelling is relatively simple. It also can provide a minimum cost dwelling that permits finishing to individual tastes as time and money are available.

- **BEAUTY**
  Few woods are as ideally suited to a wide variety of finishes. The natural beauty of knotty cedar can be retained or it can be modified by preservative stains. Resin-based paints can be used to cover the knots and achieve a unique textured surface.

- **ACCEPTABILITY**
  In Canada, provision is made for this type of construction under section 3.2.14.2 and 3.2.17 of the National Building Code.



A Central Mortgage and Housing Corporation standard low-cost floor plan was chosen for development of two types of solid cedar houses. Construction costs for this type of house built by conventional methods on a non-project basis would be $7.15 per square foot. The solid cedar experimental houses have demonstrated that under the same conditions a 3-inch plank house can be built for $5.96 per square foot, and a 2-inch plank house with strapping, insulation and plywood panels can be built for $6.48 per square foot. These costs are for the completed house, ready for occupancy.



SPECIFICATIONS FOR TWO SOLID CEDAR HOUSES BUILT TO BASIC CMHC 768 SQ. FT. FLOOR PLAN

HOUSE TYPE "A"

FLOORS—Random width, No. 3 and better, tongue and groove cedar planks spanning clear without joists from outside wall to centre beam.
FLOORING—Fir or hemlock V. G. flooring or 1/4" plywood with asphalt tile or linoleum covering.
WALLS—3" x 8" t. & g. cedar planks, No. 1 allowing 20% No. 2. Veed two sides four edges. Interior finish—clear Rez or resin-based textured paint. Exterior finish—Redwood Rez.
PARTITIONS—2" x 8" t. & g. cedar planks dressed and finished similar to exterior walls for all non-bearing partitions. Centre bearing partition to be 3" x 8" cedar.
ROOF—3" x 8" cedar planks spanning clear, without rafters, from outside wall to centre bearing partition.
Pitch: 2 - 12.
ROOFING—4-ply tar and gravel.
PLANK ENDS—End sealer to be applied to all cedar plank ends.

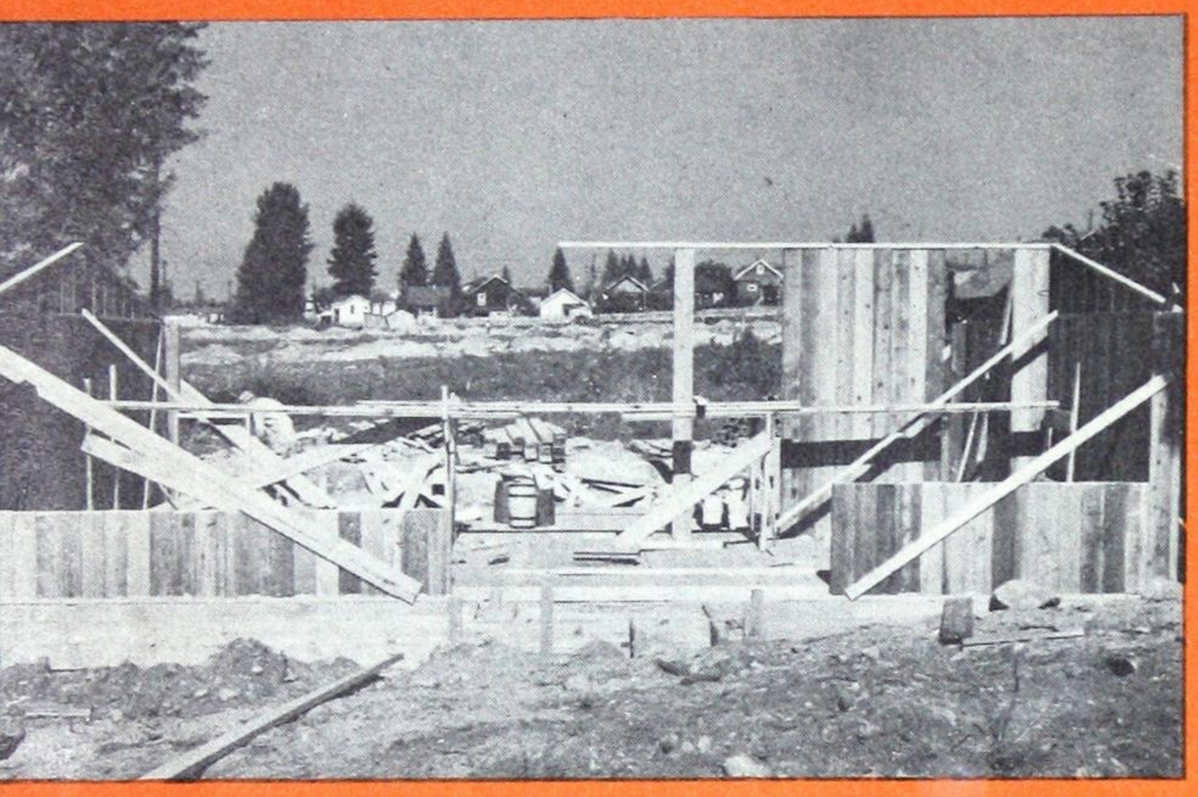
HOUSE TYPE "B"

FLOORS—Same as House Type "A".
FLOORING—Same as House Type "A".
WALLS—2" x 8" t. & g. veed cedar planks, No. 1 allowing 20% No. 2. 2" x 2" strapping at 16" o.c. and two horizontal girths. Aluminum foil insulation. Factory-patterned specialty or "Rezitexed" fir plywood on all interior walls and ceilings. Resin-based textured paint on exterior.
PARTITIONS—Same as House Type "A" except no centre bearing partition.
ROOF—Prefabricated truss of 2" x 4" and 1/2" plywood gussets. Pitch 4 1/2 - 12.
ROOFING—No. 1 5X red cedar shingles on 1" x 4" battens.

1

1. Floor joists are eliminated. Sub-floor of 3" tongue and groove cedar planks spans clear from outside walls to centre beam.

2. Three-inch planks are erected vertically to form solid outer walls and centre bearing partition. No further insulation is required for temperate climates.



2

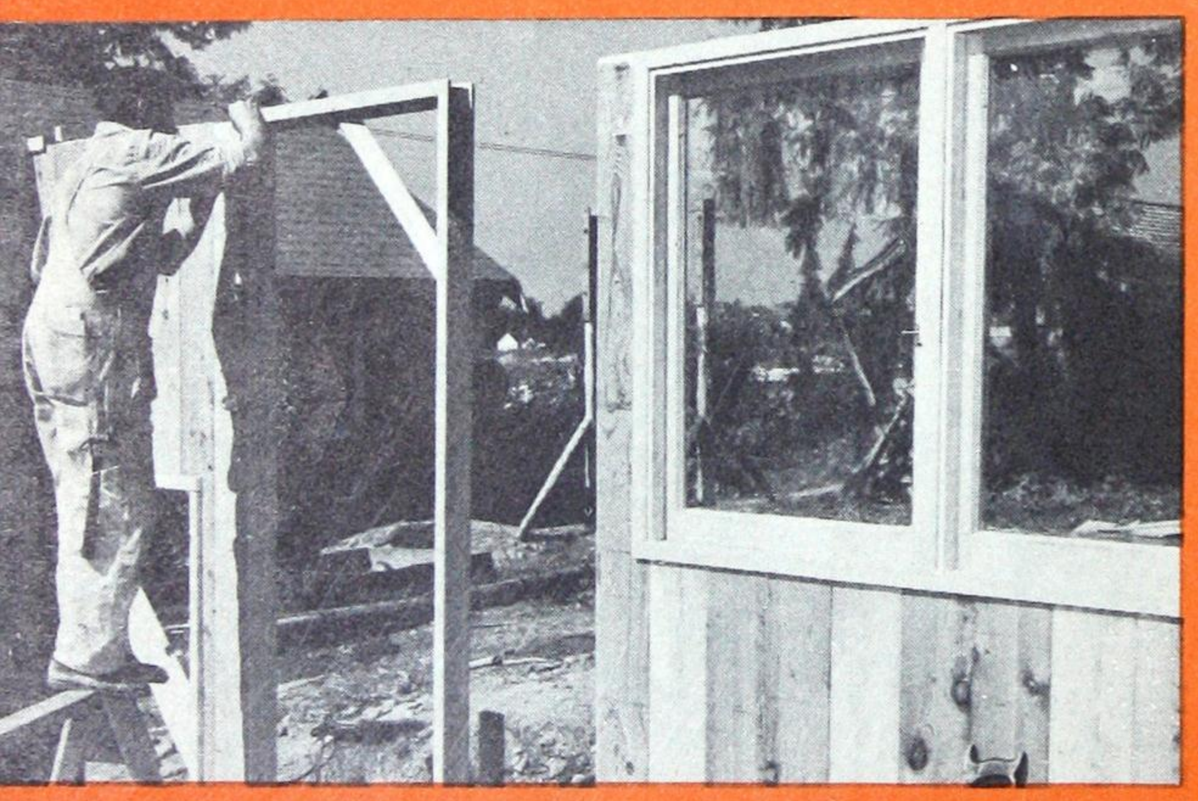
HOUSE TYPE "A"

The house pictured at the top of the front cover of this booklet is shown in this series of eight photographs as it appeared during construction.

Designed to make maximum effective use of Western Red Cedar as an all-purpose building material, this type of construction is ideal for all occasions where speed of erection and low cost are important factors. Adequate shelter can be provided with a minimum of time and expense. Insulation and panelling of walls can be undertaken after occupancy if desired. For severe climates, insulation of outer walls is recommended.

Many variations in construction details are possible with this system of building. One highly-recommended modification would be to use a low-cost, random width, No. 3 grade of 3-inch cedar plank and apply tar paper and any type of exterior and interior finish that is desired directly over the wall.

Three-inch cedar construction is particularly suited to garages, summer camps and tourist cabins. As illustrated elsewhere in this booklet it can be used to advantage in various industrial, commercial and farm buildings. The veed cedar planks, when treated with Redwood or clear Rez, give a modern rustic effect. The vertical lines can be further emphasized by applying battens.



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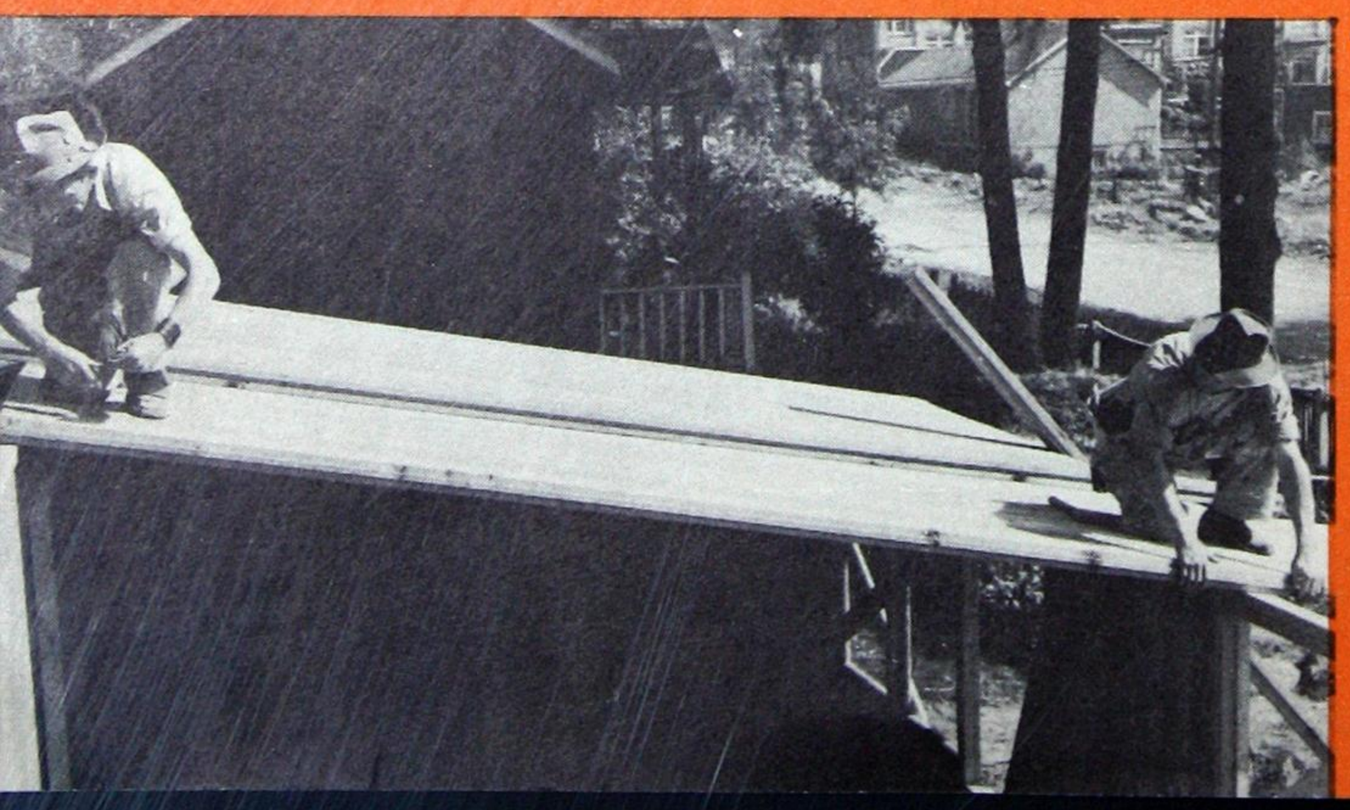
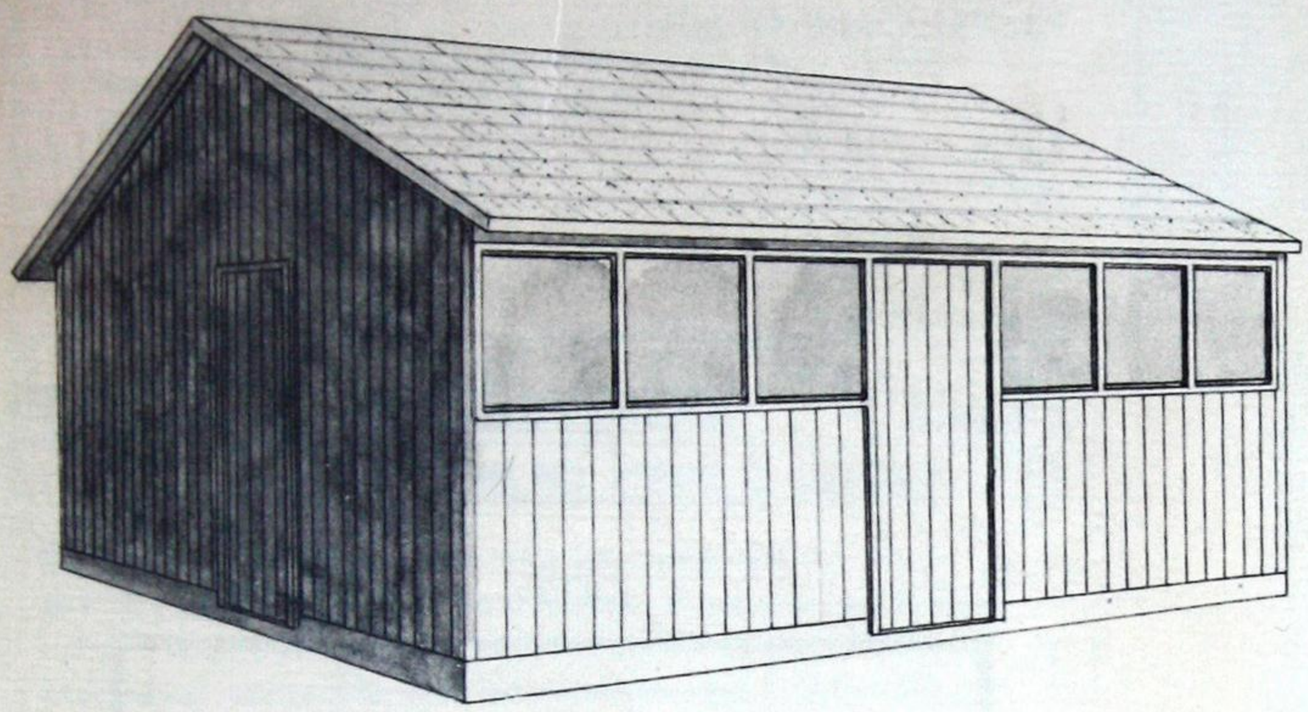


4

3. Window sash and door frames are channelled to fit over planks giving a weather-tight joint.

4. Three-inch cedar planks span from outer walls to centre bearing partition on this low-pitch rafterless roof.

IT COSTS LESS . . .
TO BUILD A SOLID CEDAR HEN HOUSE



Solid Cedar is the modern answer to your single-handed problem. You can build quickly and economically when you use Western Red Cedar. And you can be sure of lasting service when you are through.

Work sheets for a variety of Solid Cedar farm buildings are available free upon request. Simply write the B.C. Coast Woods Trade Extension Bureau specifying the type of building you wish to construct.

Check these advantages of Solid Cedar:

- **Economy.**

  Test construction proves Solid Cedar offers savings up to 16% over conventional building methods.

- **Durability.**

  Laboratory tests and actual performance prove Western Red Cedar is extremely durable and strongly resists decay. The substantial wall also ensures permanency.

- **Flexibility.**

  Enlarging or repairing is made easy with Solid Cedar. No other soft wood has as wide a range of usefulness.

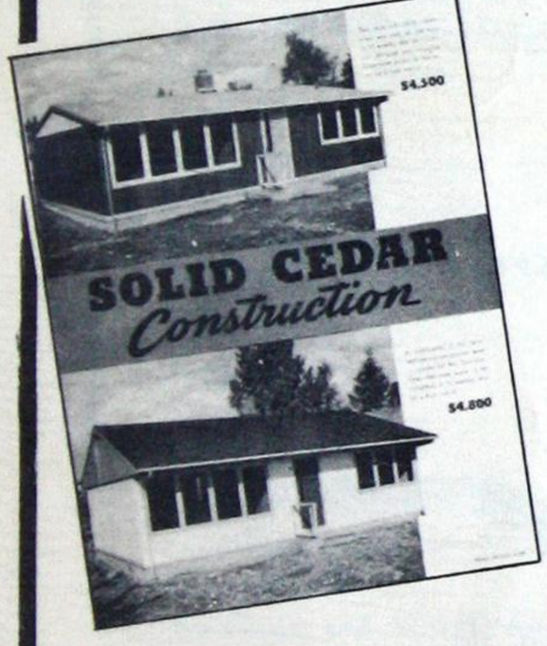
- **Safety.**

  Tests show that a Solid Cedar building is highly resistant to fire and prevents to a large extent the danger of collapse or disintegration.

- **Insulation.**

  Three inches of Cedar has insulating qualities equal to 21 inches of concrete.

Use Solid Cedar for Your Home Too



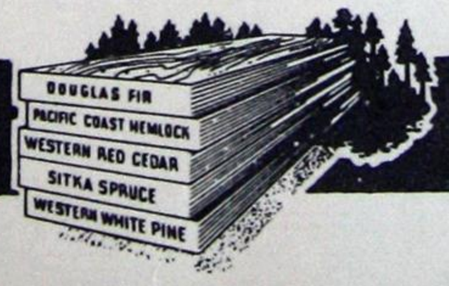
Recent test construction in Vancouver of two Solid Cedar homes has proved conclusively that this building method offers revolutionary savings in time and money. In one case the actual saving over conventional methods was as much as 16.6% of the total cost of the house!

The attractive, 12-page booklet — "Solid Cedar Construction" — tells you the whole story. Step by step photos taken during actual construction, illustrate how maximum effective use can be made of this remarkable all-purpose wood. Where speed of erection and low cost are important factors Solid Cedar is ideal.

In addition to the many advantages Solid Cedar possesses for general construction purposes, few woods offer as much natural beauty for interior finish effects. Architects everywhere freely specify cedar joinery for its rich and varied appearance in the home.

If you have not already seen the Solid Cedar booklet, send for your free copy to-day. It will show you how Solid Cedar can match economy with quality when you build your new home.

B.C. COAST WOODS
837 WEST HASTINGS STREET



TRADE EXTENSION BUREAU
VANCOUVER, B. C., CANADA

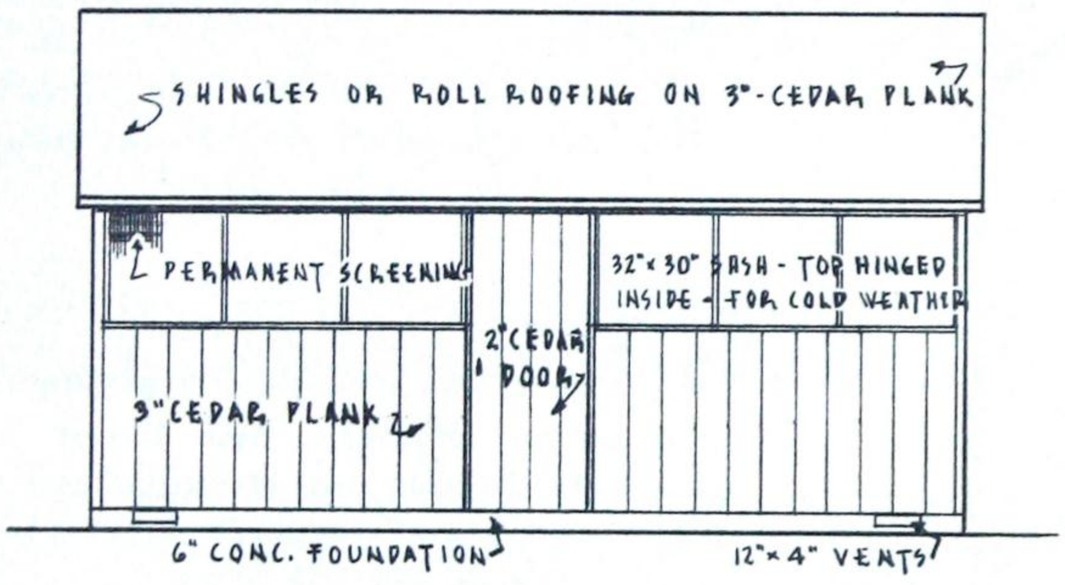
IT'S EASY...

TO BUILD A SOLID CEDAR HEN HOUSE

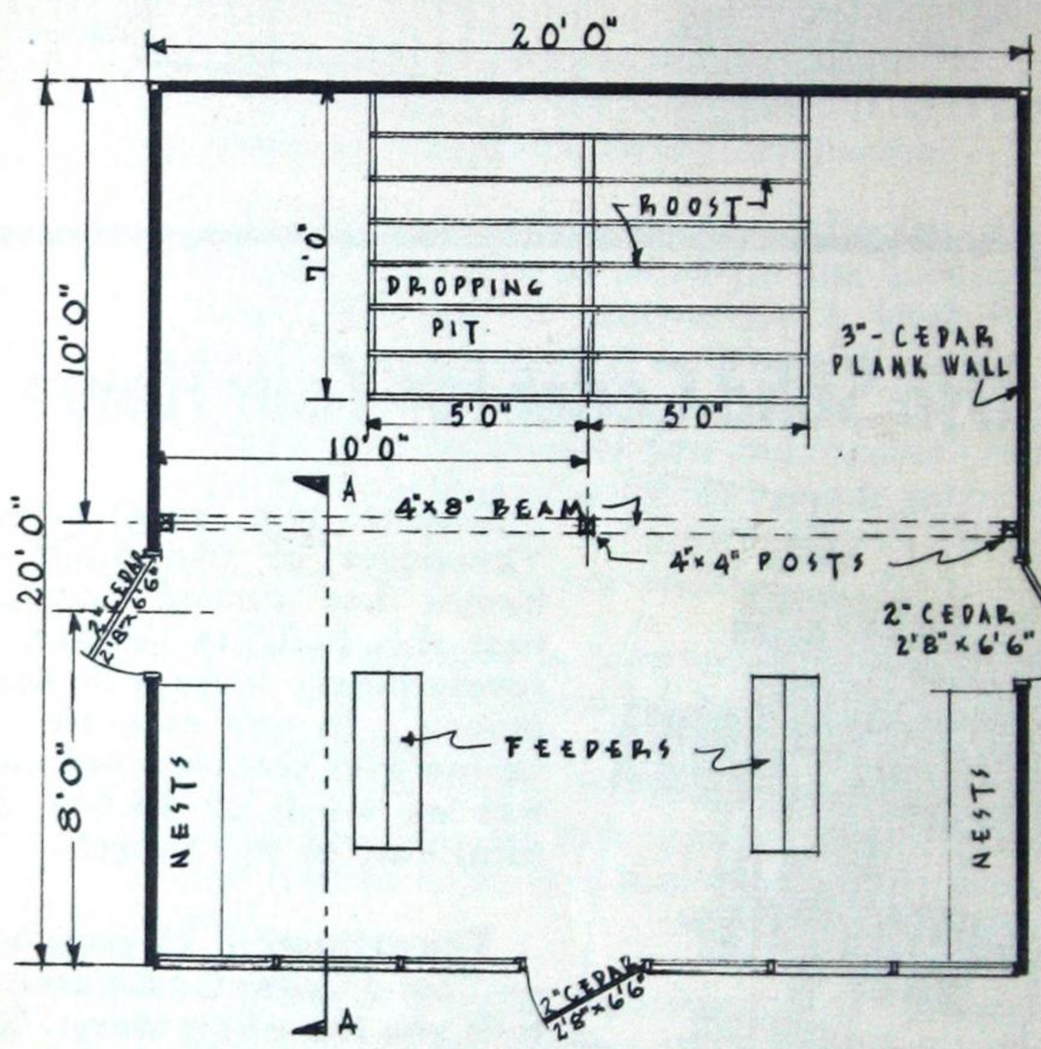
MATERIALS REQUIRED:

Western Red Cedar t. & g. 3" x 7"		Pieces	Length
ROOF		56	12'-0"
WALLS	front	29	4'-2"
	side	35	18'-0"
	back	35	7'-6"
FLOOR		70	10'-0"
DOOR		5	6'-6"
CORNER POST		Lin.	26'

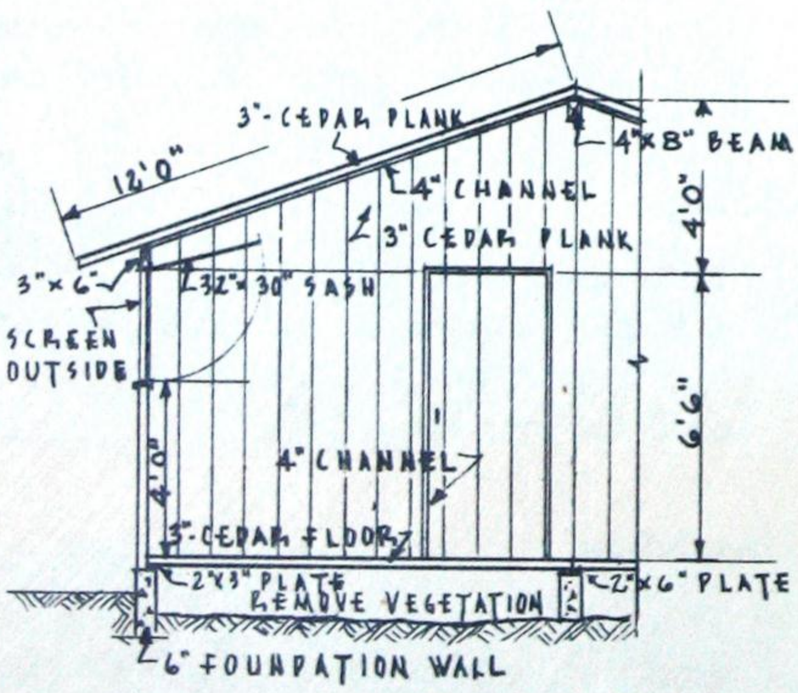
Pacific Coast Hemlock		Pieces	Length
BEAM 4 x 8		2	10'-0"
POST	4 x 4	3	11'-0"
	3 x 6	Lin.	20'
PLATE 2 x 3 & MULLIONS		Lin.	60'
PLATE 2 x 6		Lin.	20'
CHANNEL		Lin.	34'
SILL		Lin.	17'



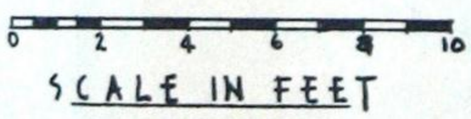
- FRONT ELEVATION -



- PLAN -

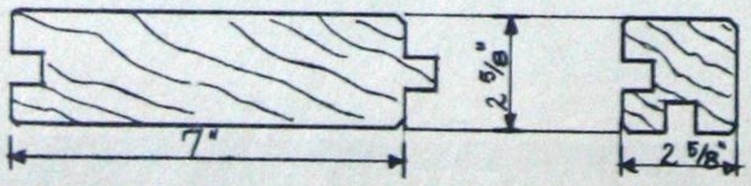


- SECTION 'A-A' -

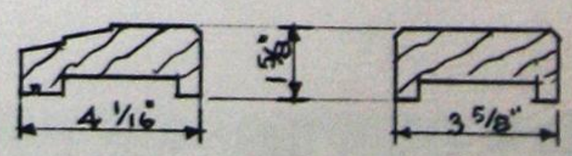


NOTE:

- ADDITIONAL UNITS CAN BE ADDED TO EITHER END.
- BEAMS, POSTS, SILLS, AND CHANNELS ARE PACIFIC COAST HEMLOCK OR DOUGLAS FIR.



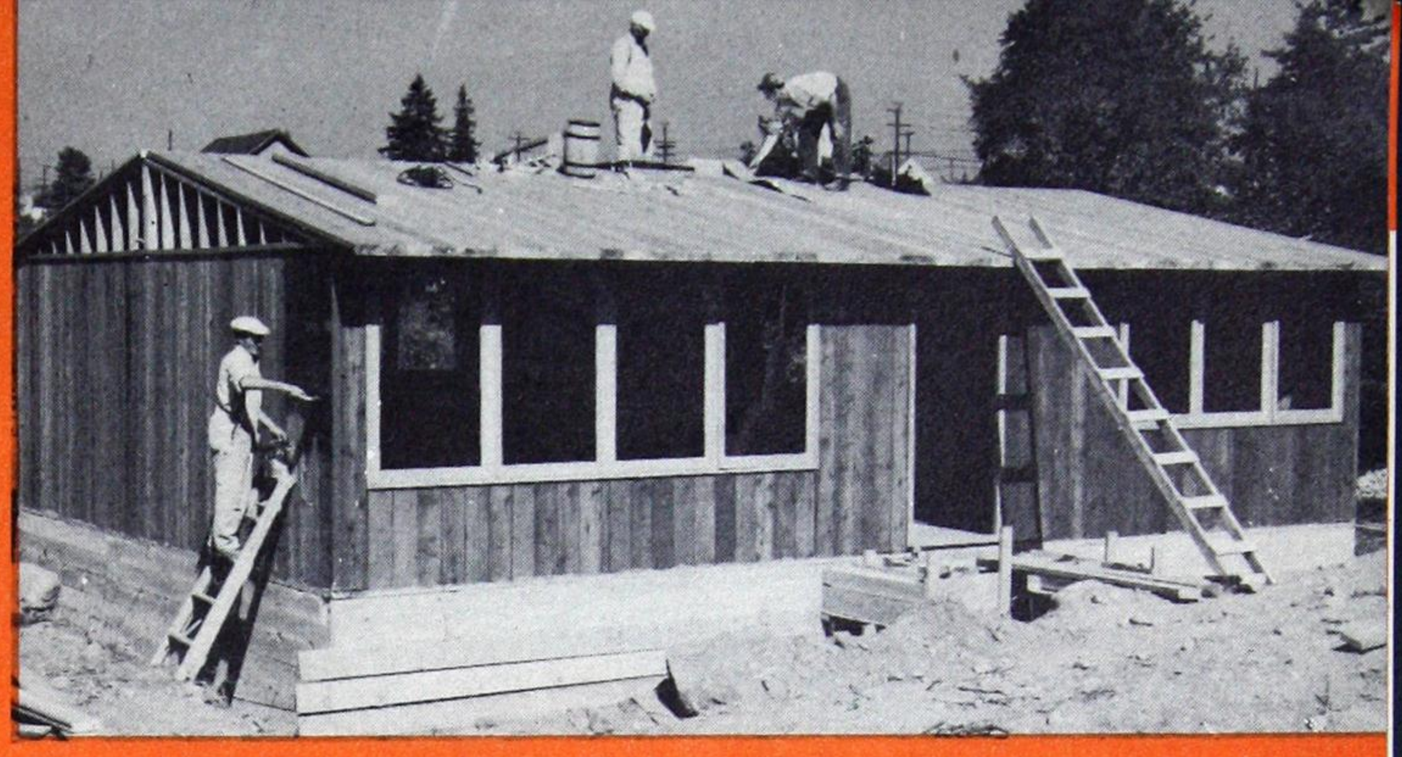
- WALL PLANK - - CORNER POST -



- SILL - - CHANNEL -
(USED FOR HEAD & JAMBS - ALL OPENINGS)

5. The house on the fifth working day Four-ply tar and gravel roofing was applied later.

6. Non-bearing partitions are of 2-inch cedar planks. 2" x 3" channel plates on floor and ceiling simplify erection, also serve as moulding.

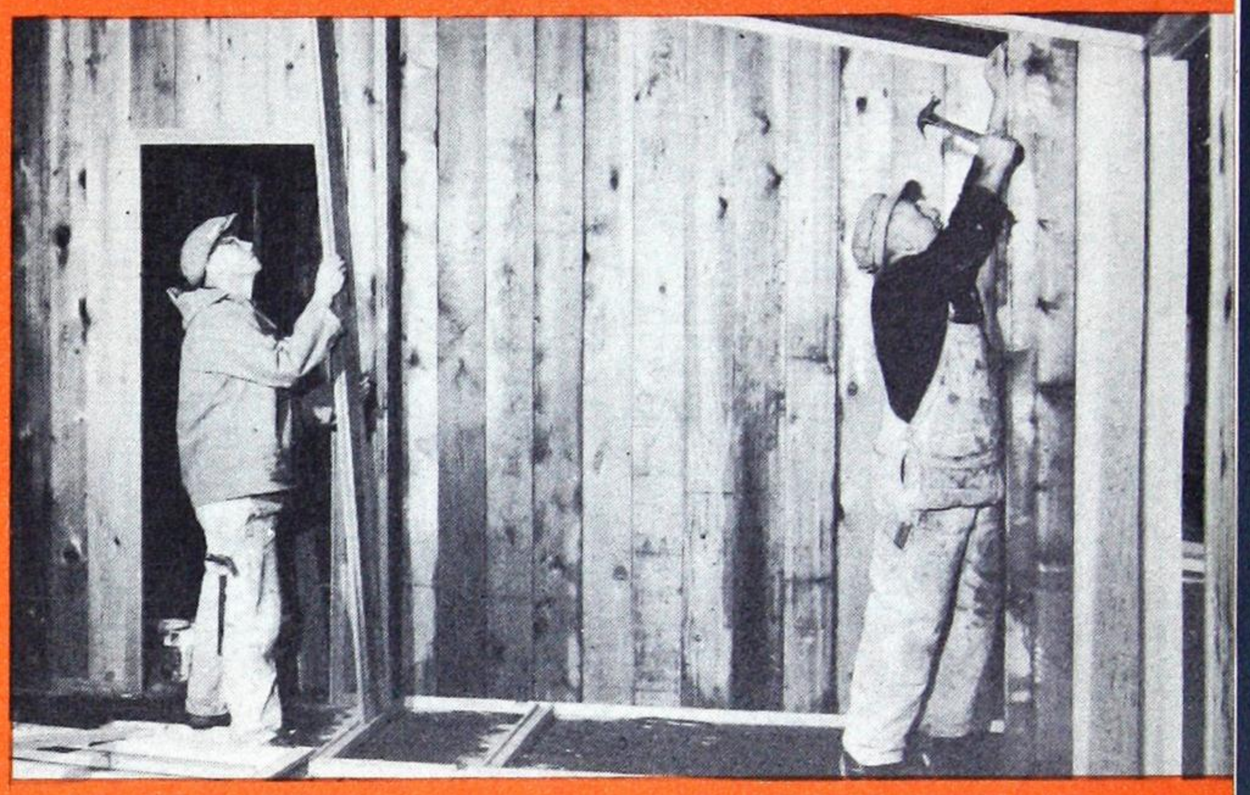


5

COST DATA FOR THREE-INCH SOLID CEDAR HOUSE

Because additional costs are encountered on non-project building, the contractor shows here the actual expenses that would occur if built for an individual owner in the Vancouver area. Only 350 man hours would be required to build this house. A 16.6% saving over conventional construction can be achieved.

City permits and fees	$ 114.00
Excavating	25.00
Grading	20.00
Concrete walls and floors	156.00
Drain, tile and sewer	95.65
Lumber	709.60
Roofing	140.00
Chimney	59.50
Wiring	182.00
Light fixtures	25.00
Plumbing	515.00
Heating	230.00
Flooring	170.00
Painting	320.00
Rough Hardware	31.28
Millwork (including finish hardware)	650.00
Carpenter labor (av. $1.62 per hr.)	567.46
Compensation	42.56
Overhead and Miscellaneous	110.69
Total	$4,163.74
Contractor's Fee	416.37
Grand Total	$4,580.11

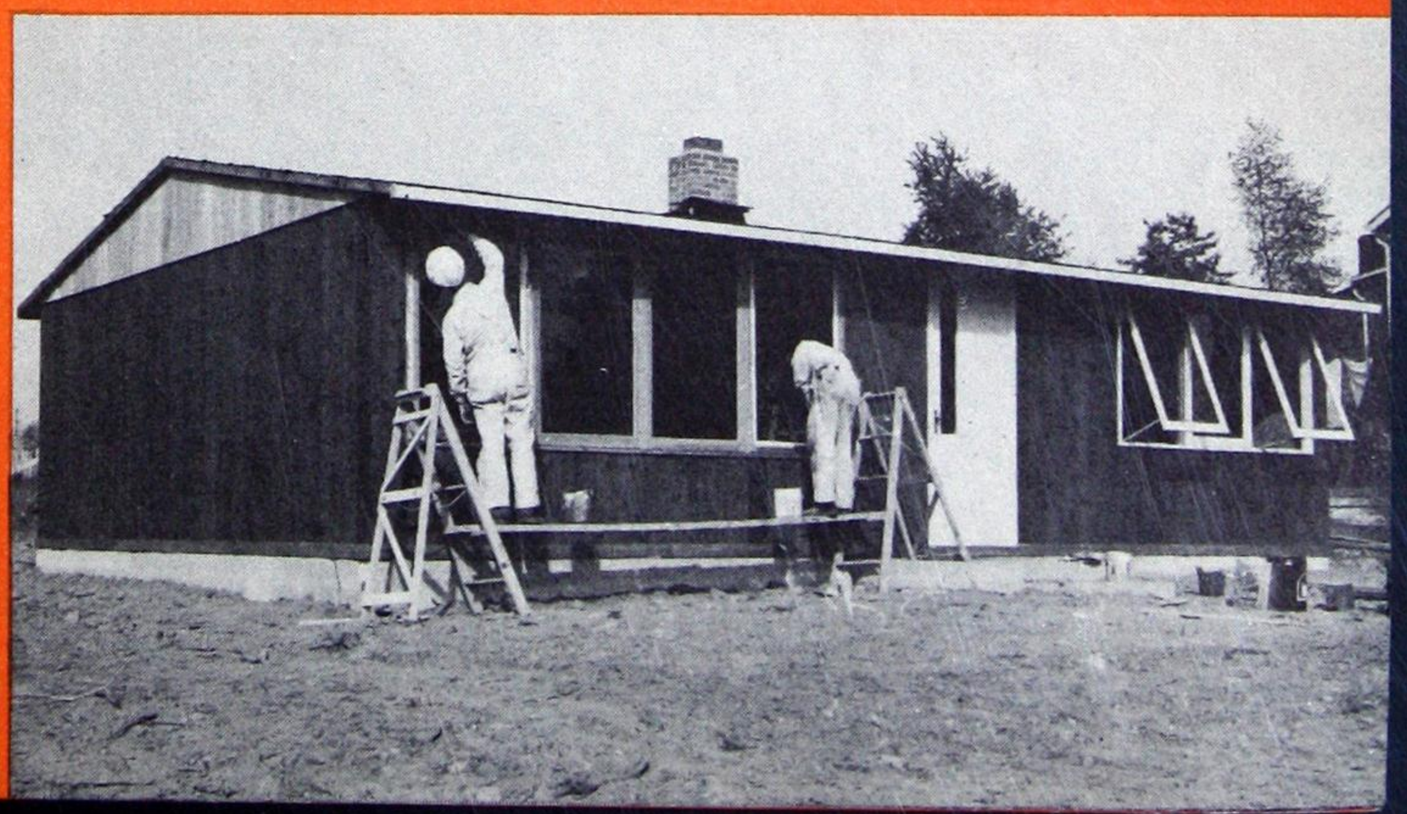


6

7

7. Electrical outlets are at floor level, switches are on cupboard walls. Windowed wall has been primed for painted finish. End wall has been treated with clear Rez.

8. Decorative specialty plywood and batt insulation has been used for both interior and exterior gable ends. Cedar is finished with Redwood Rez.

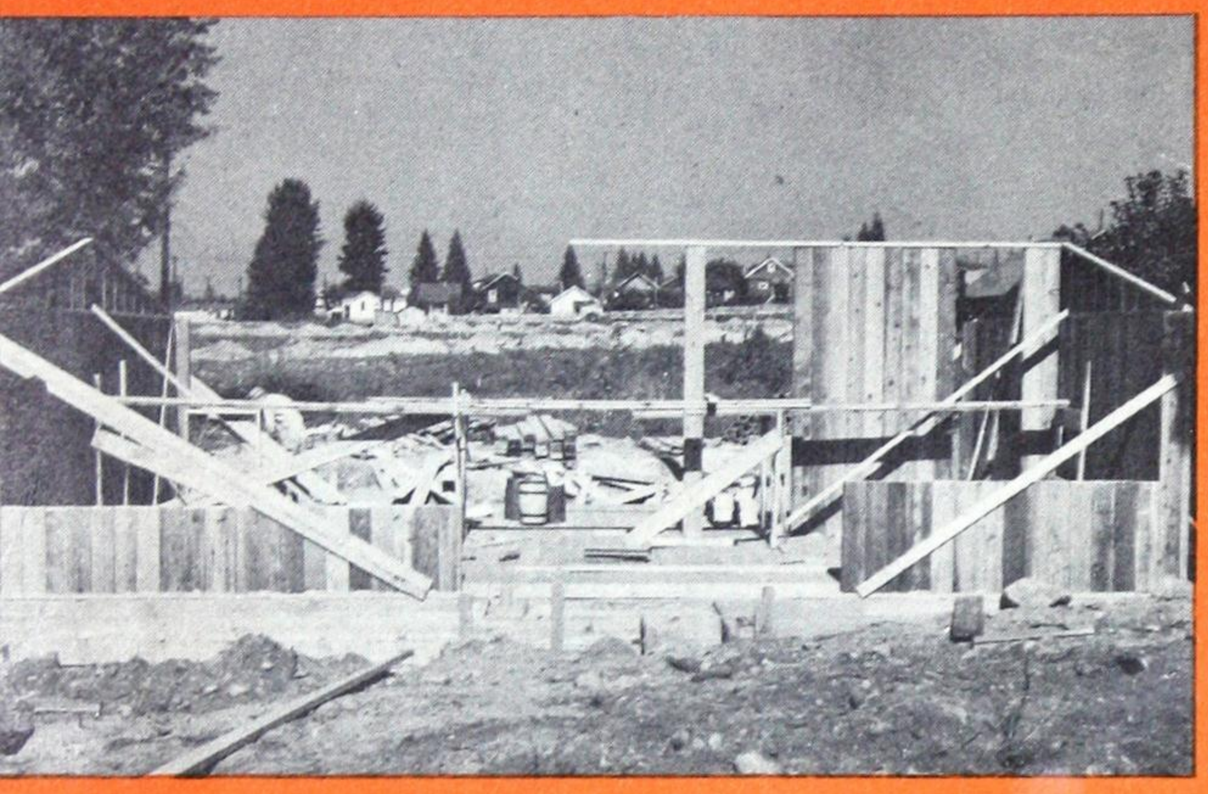


8

1

1. Floor joists are eliminated. Sub-floor of 3" tongue and groove cedar planks spans clear from outside walls to centre beam.

2. Three-inch planks are erected vertically to form solid outer walls and centre bearing partition. No further insulation is required for temperate climates.



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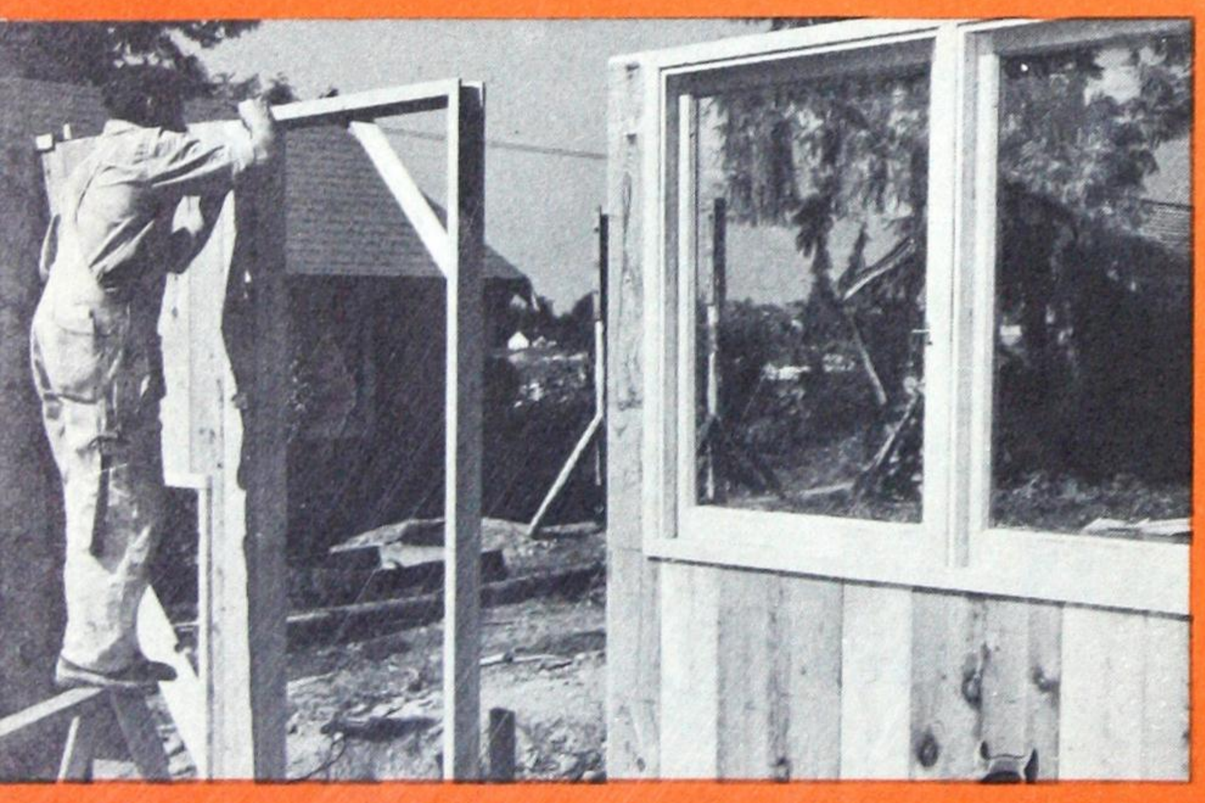
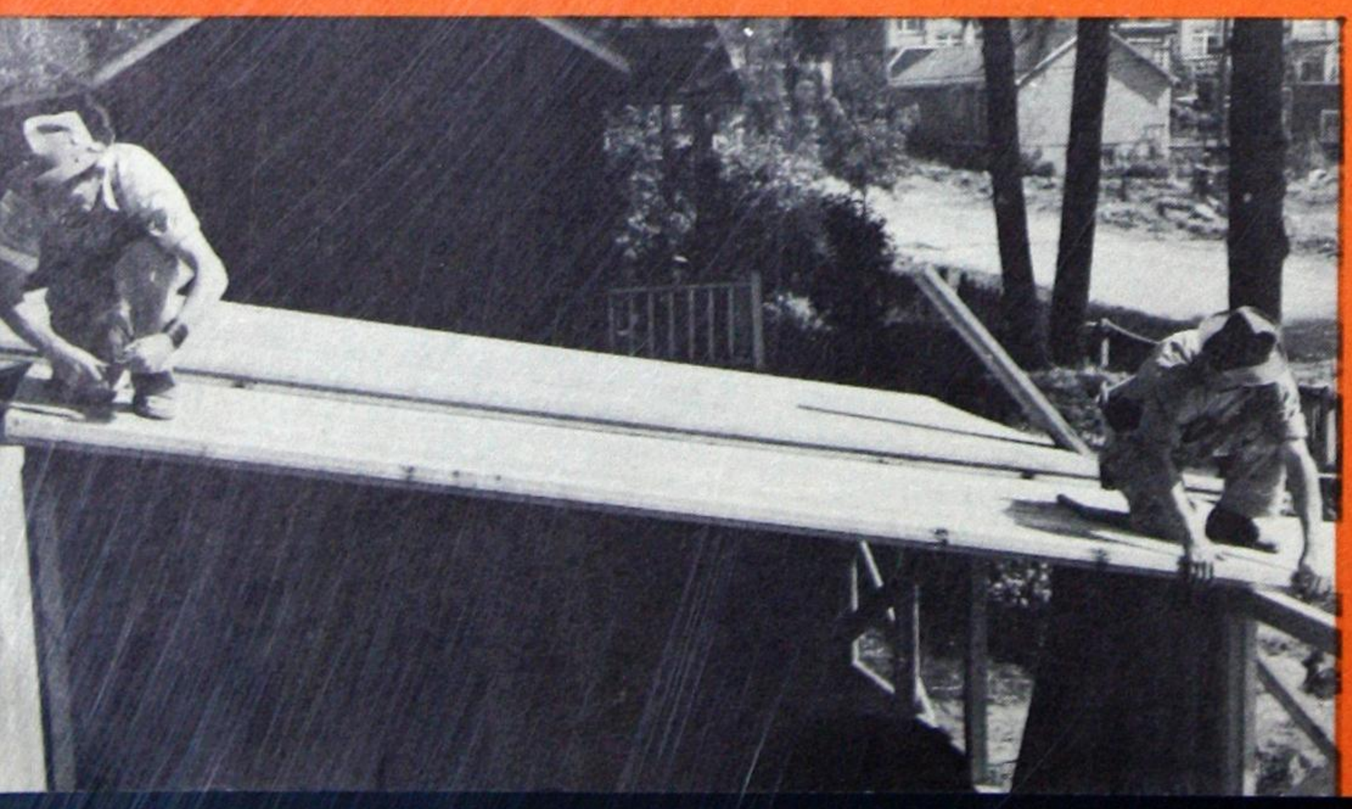


3

3. Window sash and door frames are channelled to fit over planks giving a weather-tight joint.



4

4. Three-inch cedar planks span from outer walls to centre bearing partition on this low-pitch rafterless roof.

HOUSE TYPE "A"

The house pictured at the top of the front cover of this booklet is shown in this series of eight photographs as it appeared during construction.

Designed to make maximum effective use of Western Red Cedar as an all-purpose building material, this type of construction is ideal for all occasions where speed of erection and low cost are important factors. Adequate shelter can be provided with a minimum of time and expense. Insulation and panelling of walls can be undertaken after occupancy if desired. For severe climates, insulation of outer walls is recommended.

Many variations in construction details are possible with this system of building. One highly-recommended modification would be to use a low-cost, random width, No. 3 grade of 3-inch cedar plank and apply tar paper and any type of exterior and interior finish that is desired directly over the wall.

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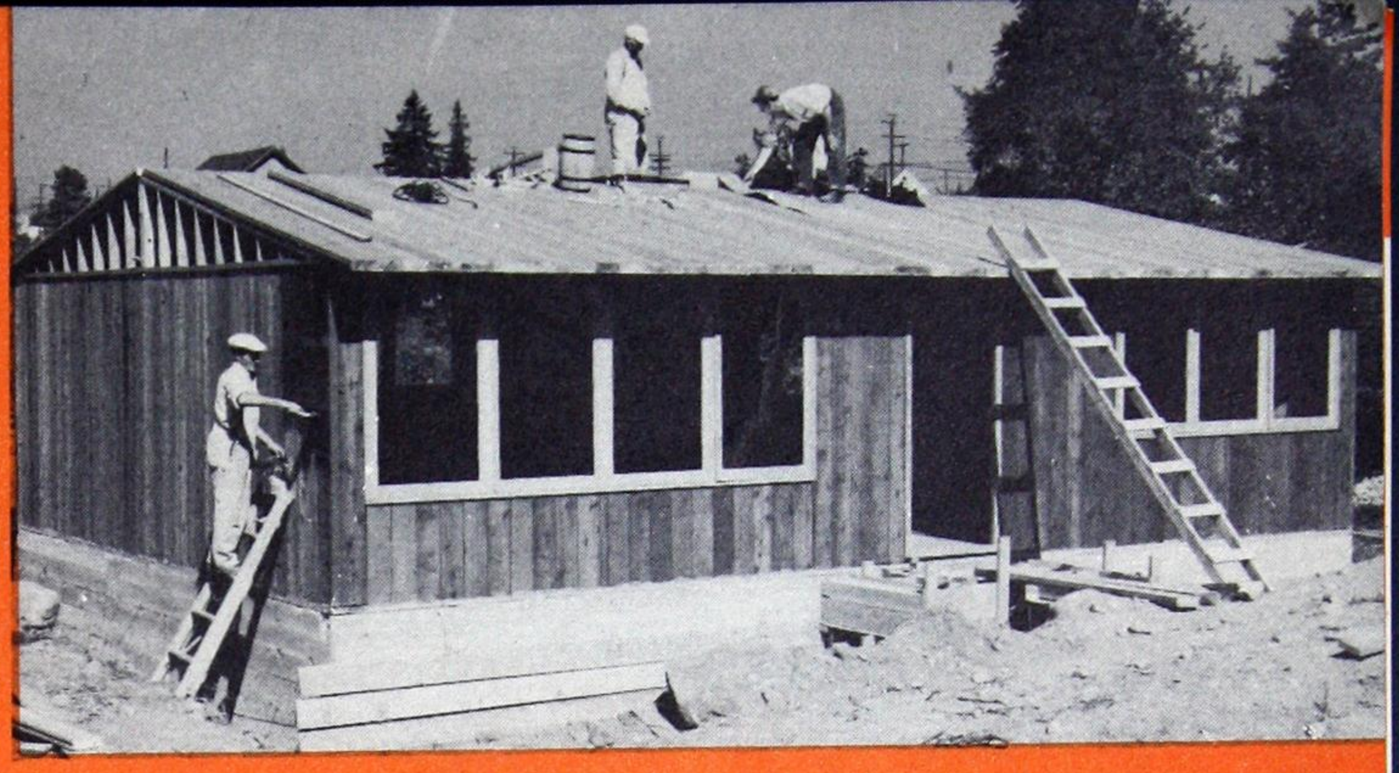

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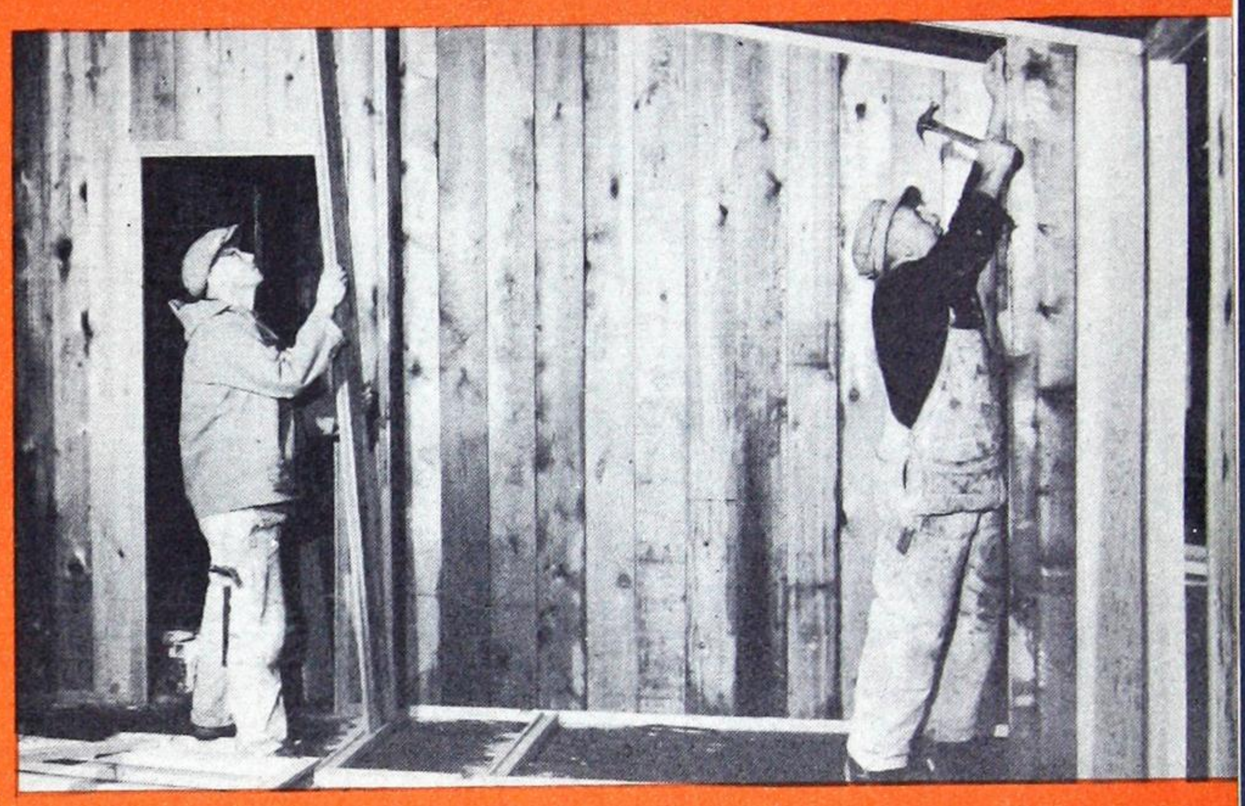

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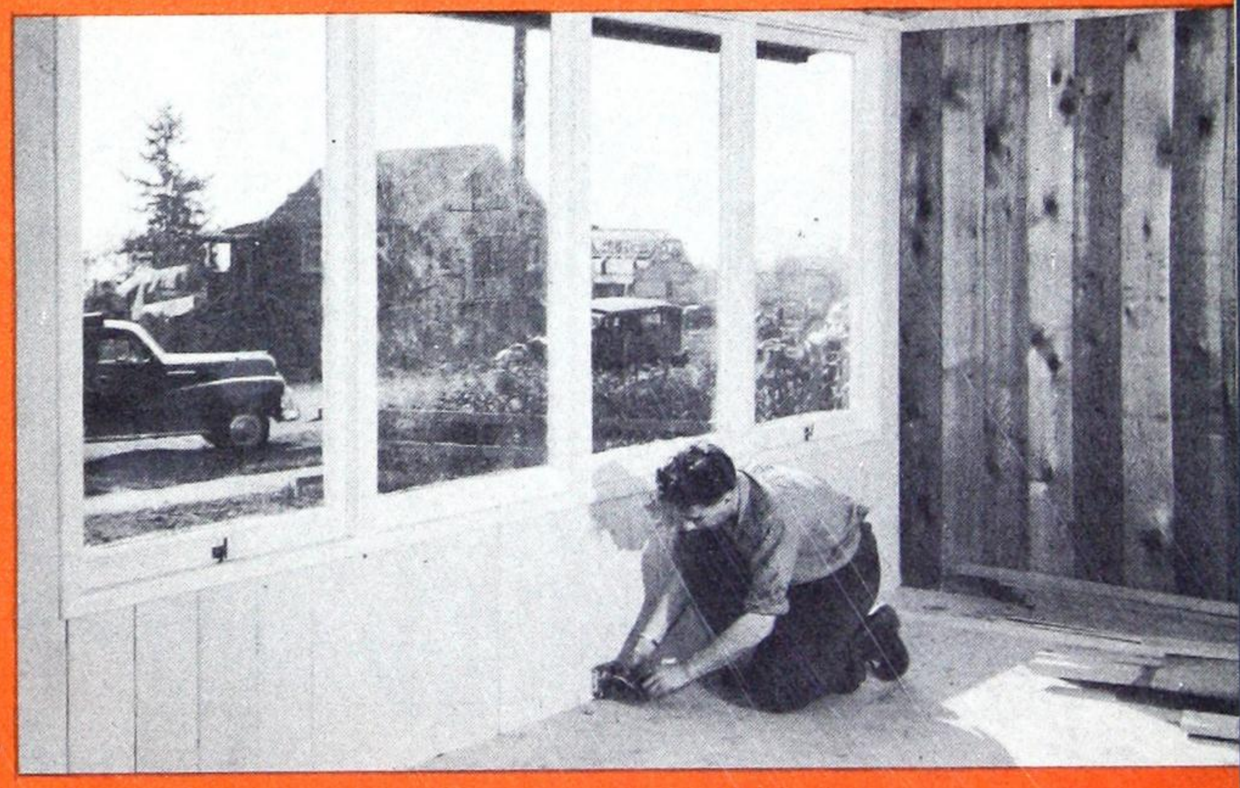
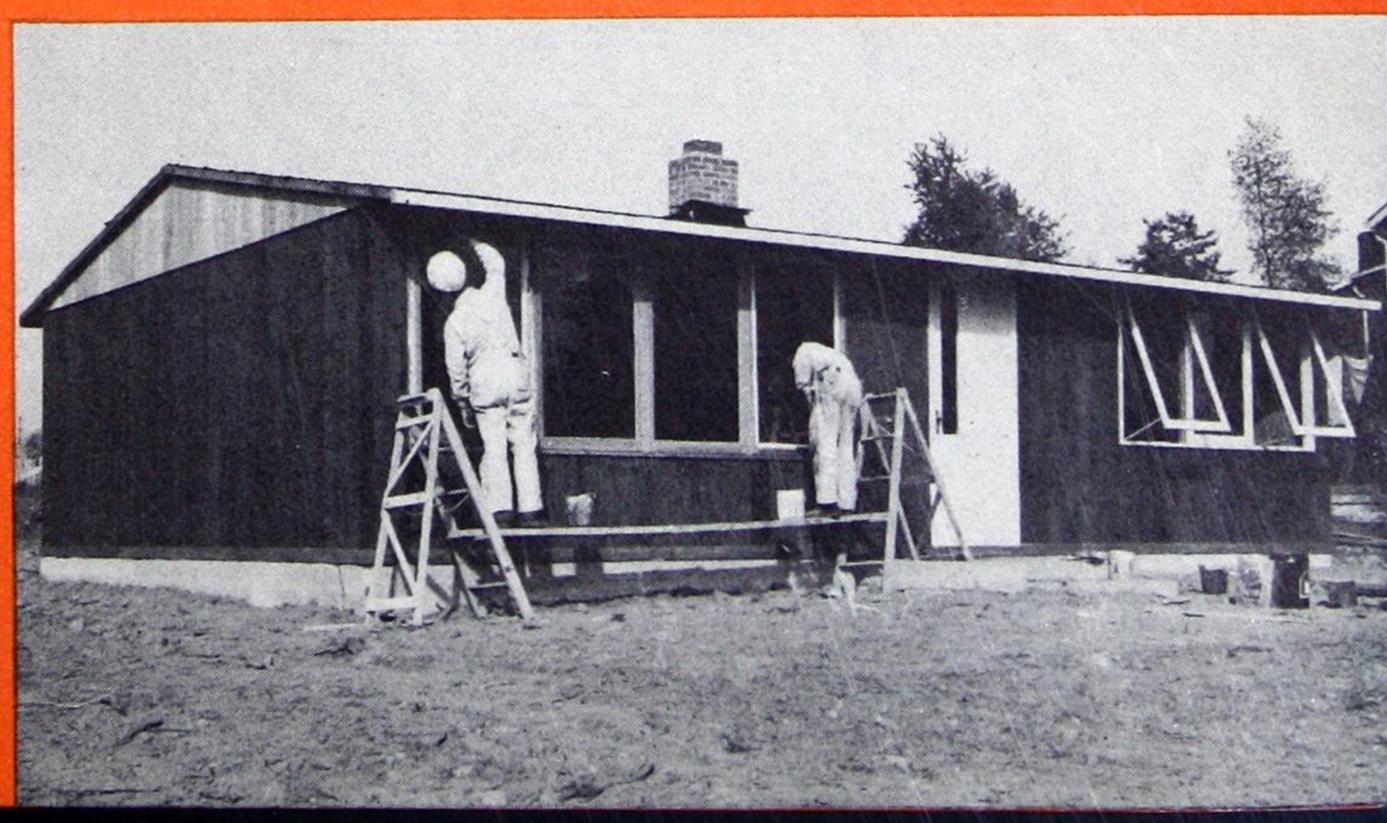


7

7. Electrical outlets are at floor level, switches are on cupboard walls. Windowed wall has been primed for painted finish. End wall has been treated with clear Rez.

8. Decorative specialty plywood and batt insulation has been used for both interior and exterior gable ends. Cedar is finished with Redwood Rez.



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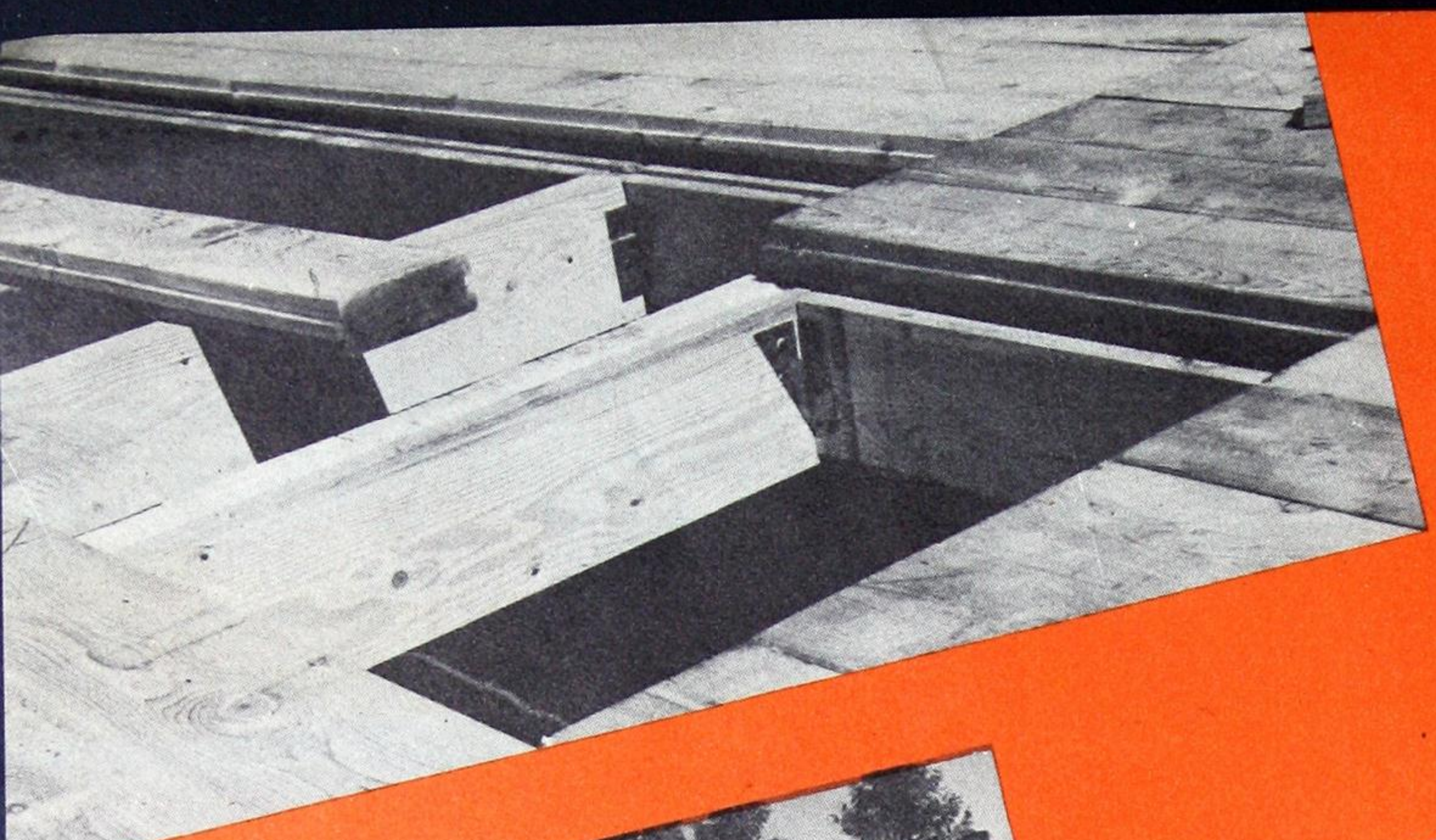


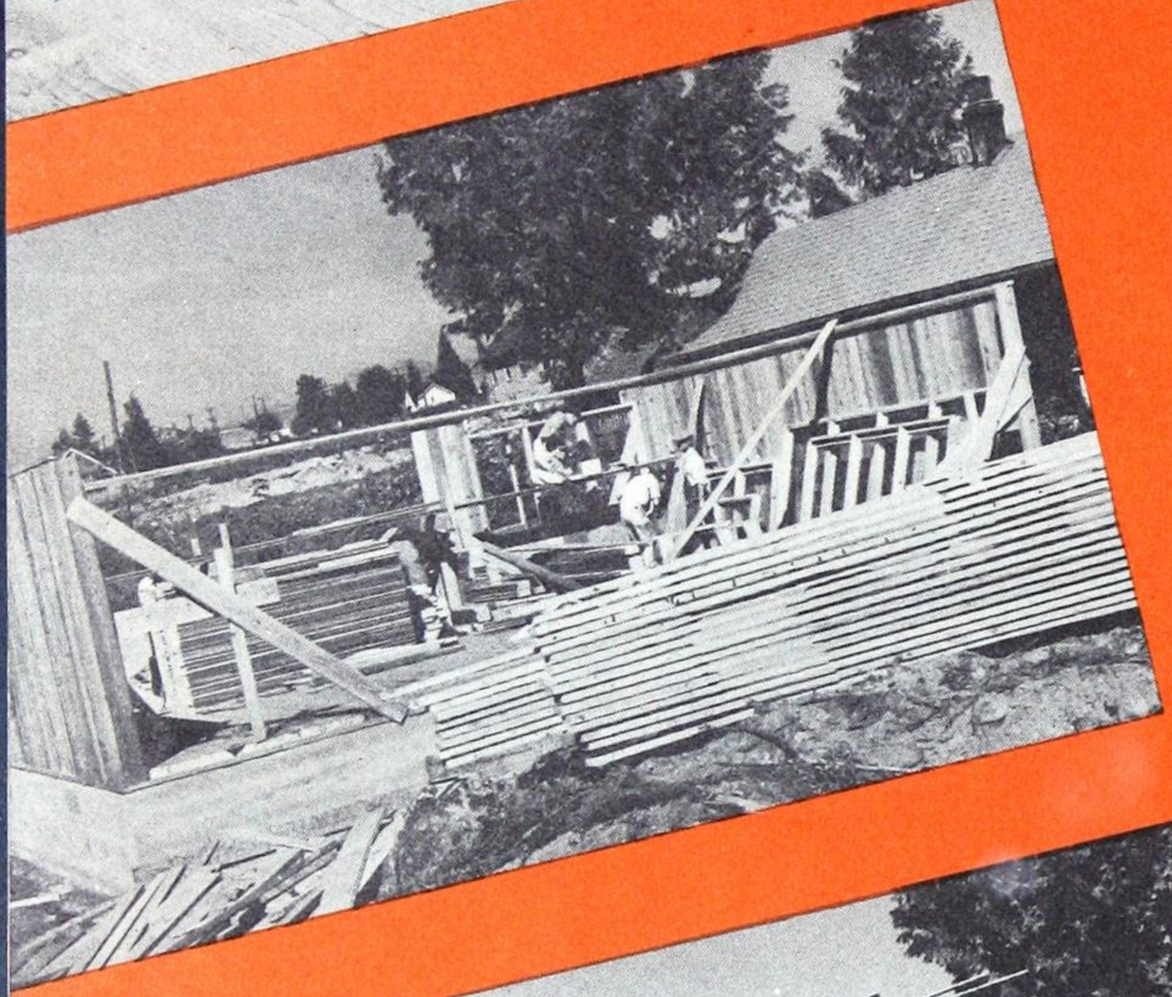
1. Around floor openings and under partitions, 3-inch cedar planks on edge are connected to centre beam with Teco Trip-L-Grip framing anchors.

2. Pre-assembled roof trusses in foreground will span clear from out eliminate bearing partitions.

3. The house on the fourth working day. Outer walls are of 2-inch will require additional insulation.

4. Conventional roof with attractive and durable 5X red cedar shi this house is optional. Solid cedar roof is less costly alternative.

1



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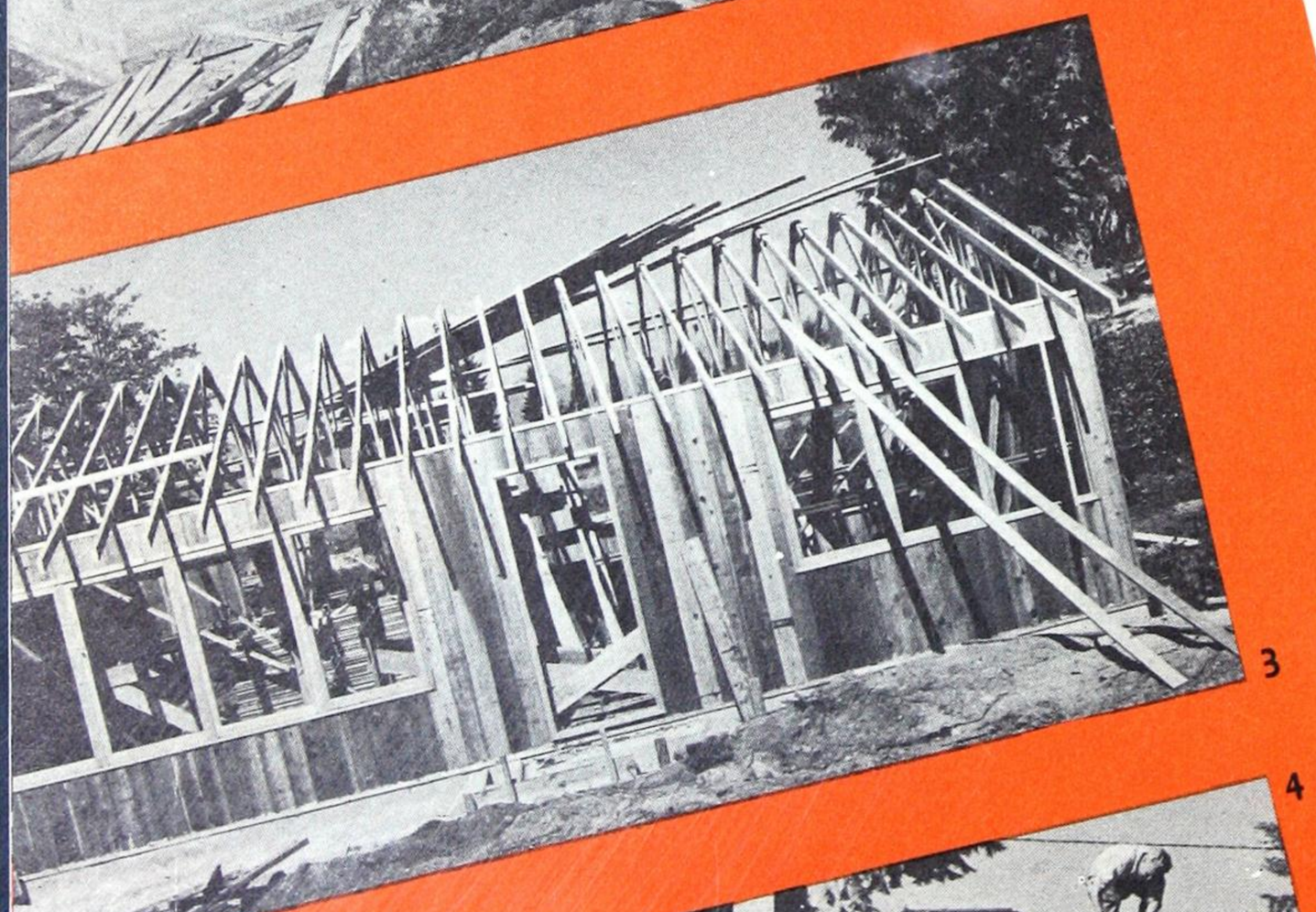

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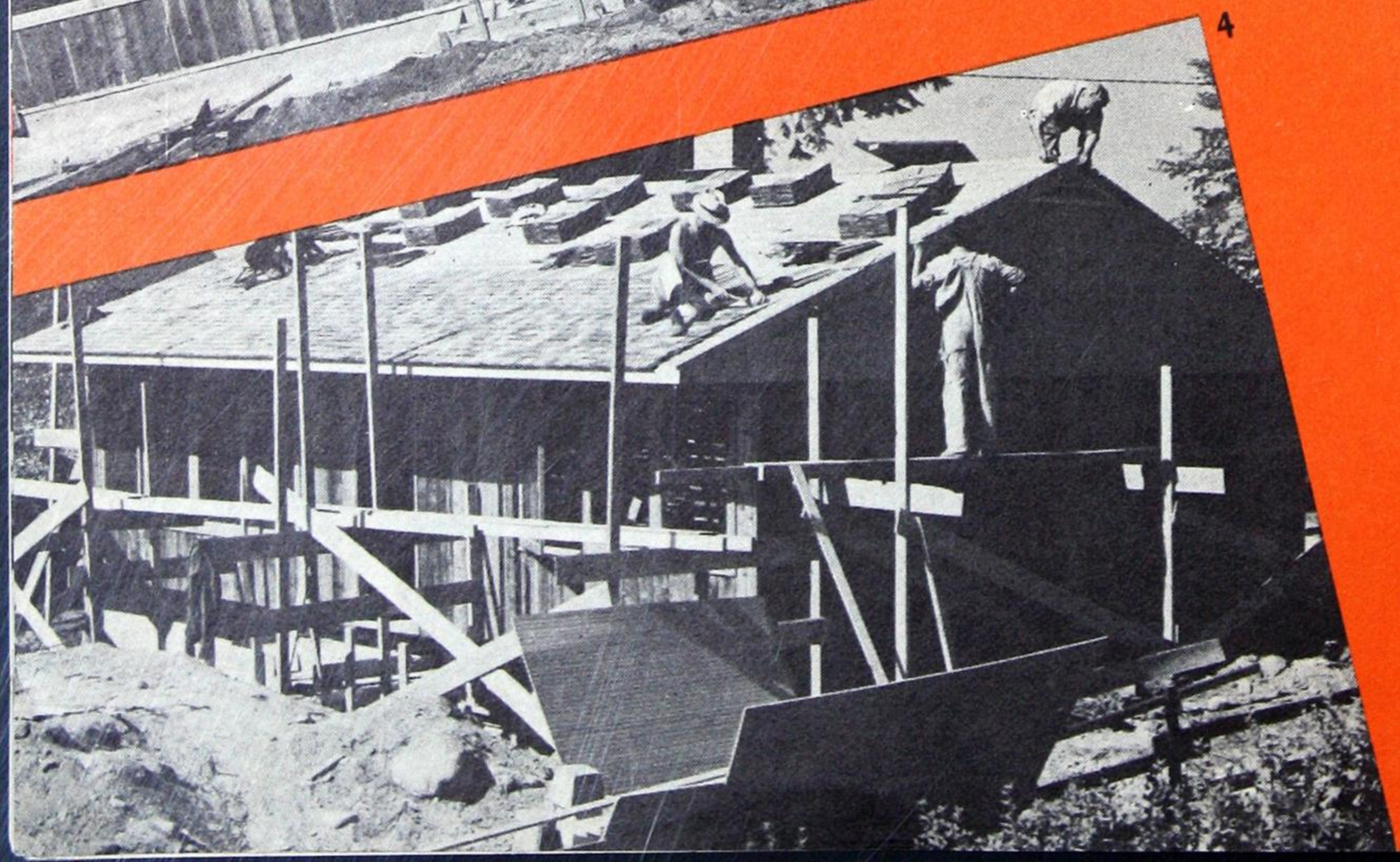


4

HOUSE TYPE "B"

The house pictured during construction on these two pages is shown also at the bottom of the book-let cover as it appeared upon completion.

This type of construction utilizes many of the advantages of simplified erection developed for House Type "A" while permitting the completed home to be more similar in style to the conventional type of house. As in house type "A", a No. 3 grade of 2-inch cedar may be used for outer walls and then covered with tar paper and cedar shingles or shakes.

House Type "B" offers a permanent, finished structure, suitable for any climate. Comparative information on heat transmission coefficients ap-pears elsewhere in this booklet. In this house full advantage is taken of the outstanding prop-erties of insulation provided by Western Red Cedar and, at the same time, an air space for additional insulation and wiring is obtained. Sub-stitution of 3-inch cedar for outer walls provide even greater insulation at a relatively small increa in cost.

The solid cedar roof used on House Type "A' equally suitable for the house shown on this p Cedar planks can be used as well on a stee pitch roof with a covering of shingles and a fra in ceiling.

A comparison between the "roofing" cost in House Types "A" and "B" is misleading. quoted are for actual roofing materials and t cost of their application. Preparatory labor the conventional type of roof used on Ho "B" account for an estimated $44.80 m House Type "A". Also, painting costs fo ventional type of roof account for an additional amount of $50 not required Type "A".

and

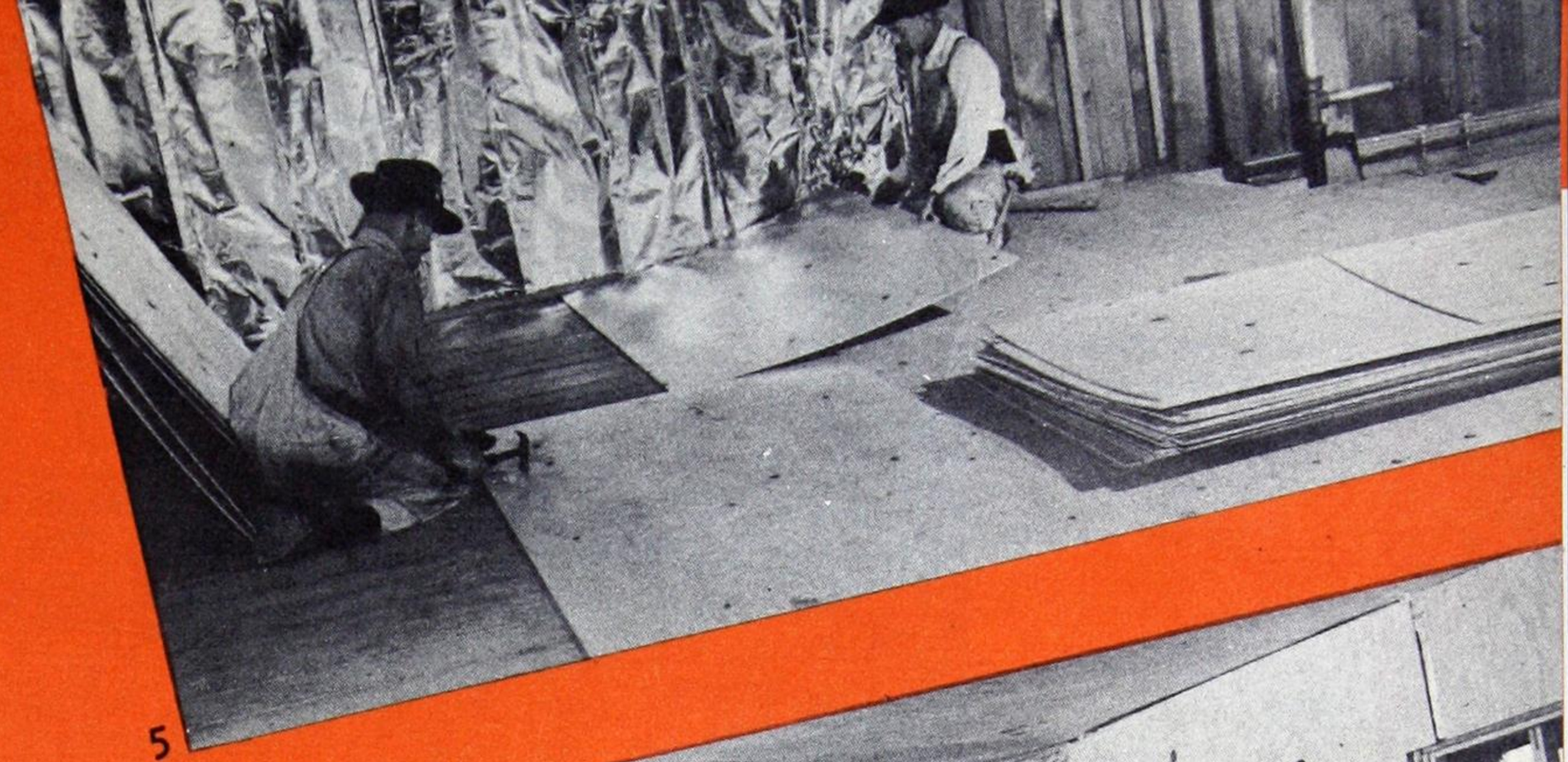
planks,

used on

TA FOR TWO-INCH SOLID CEDAR HOUSE

additional costs are encountered on non-buildings, the contractor shows here the expenses that would occur if built for an al owner in the Vancouver area. Only 448 ours would be required to build this fully-ed house. A 9.3% saving over conventional ruction can be achieved.

City permits and fees	$ 114.00
Excavating	25.00
Grading	20.00
Concrete walls and floors	156.00
Drain, tile and sewer	95.65
Lumber	778.86
Roofing	126.55
Chimney	80.50
Wiring	174.00
Light fixtures	35.00
Plumbing	515.00
Heating	230.00
Insulation	84.82
Flooring	170.00
Painting	370.00
Rough Hardware	38.12
Millwork (including finish hardware)	620.00
Carpenter labor (av. $1.62 per hr.)	725.24
Compensation	54.39
Overhead and miscellaneous	112.46
	$4,525.59
	452.56
Total	
Contractor's Fee	$4,978.15
Grand Total	



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6

7

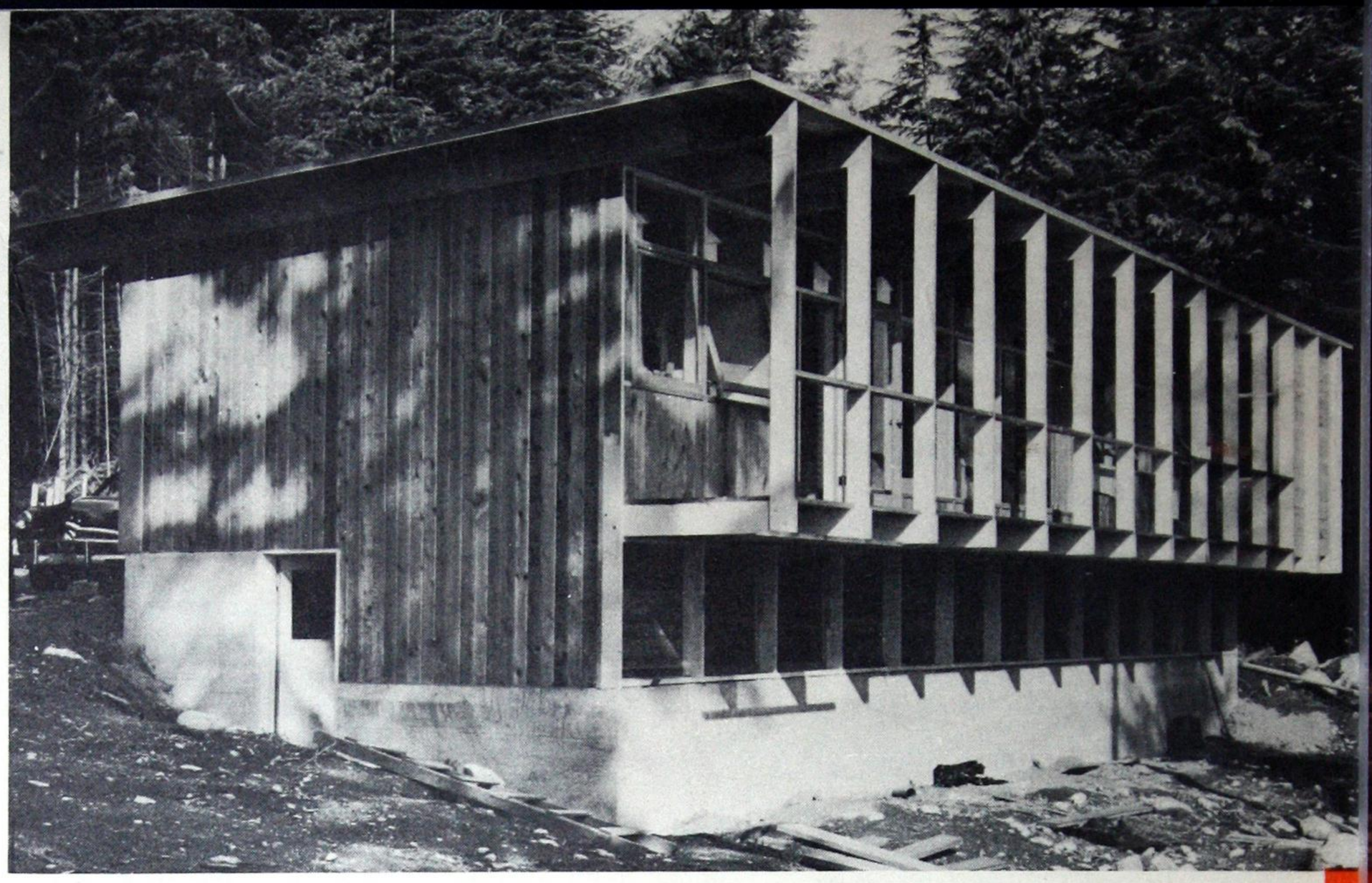
de plywood is used over 3-inch cedar plank sub floor. 2" x 2" flective aluminum insulation is applied to outer walls.

insulated outer walls are plywood panelled. Conventional roof pro-ceilings.

cedar plank partitions require no framing although conventional frame y be used if preferred. 2" x 6" framing for wall in left background is late plumbing. Framing was later panelled with plywood.

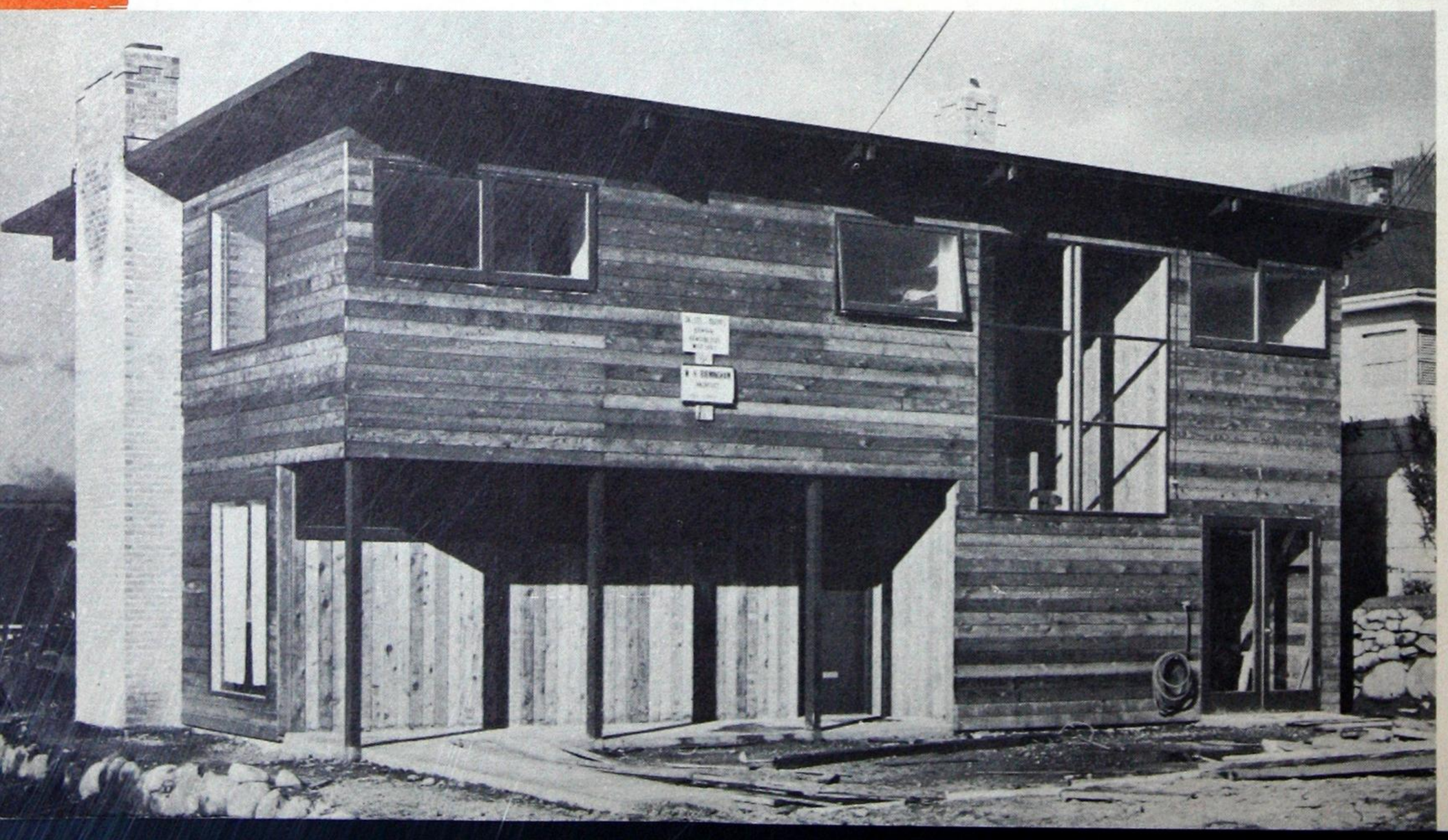
se on the fourteenth working day. Rezitex is used here for exterior . A modern rustic effect can be achieved with a natural or stained

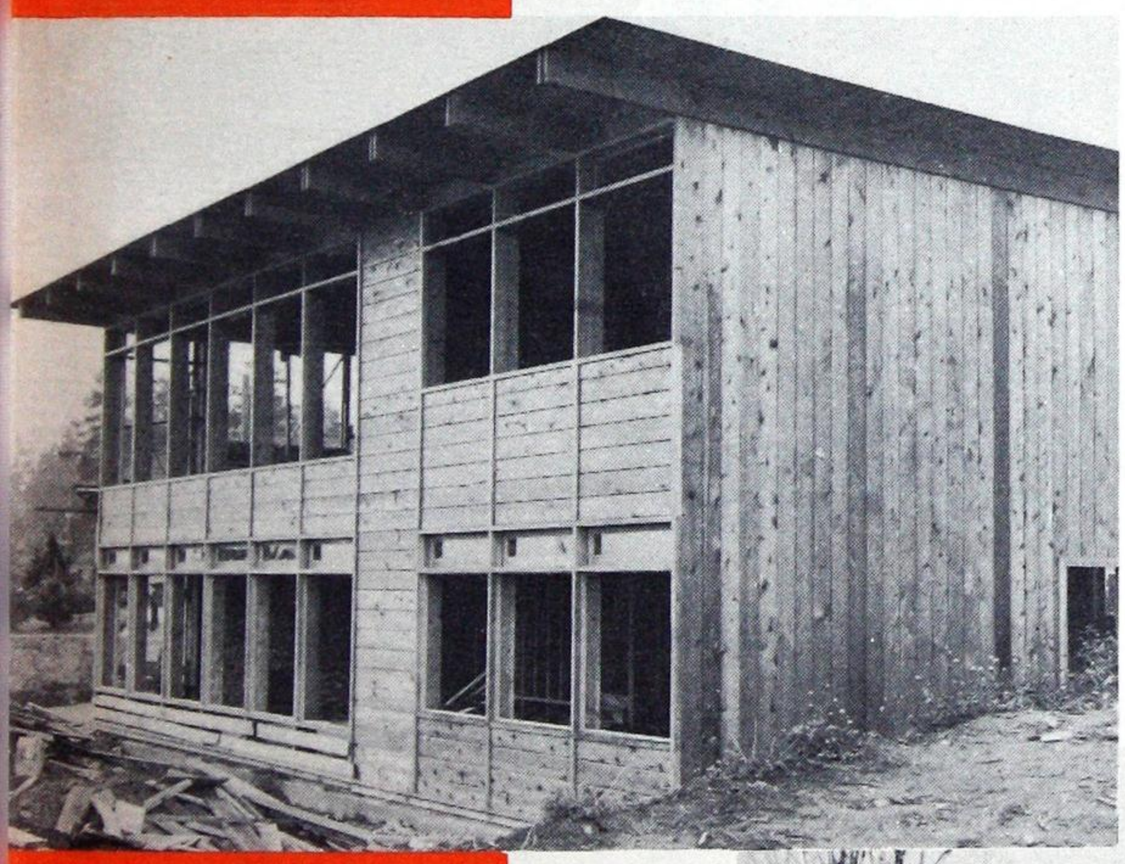
8

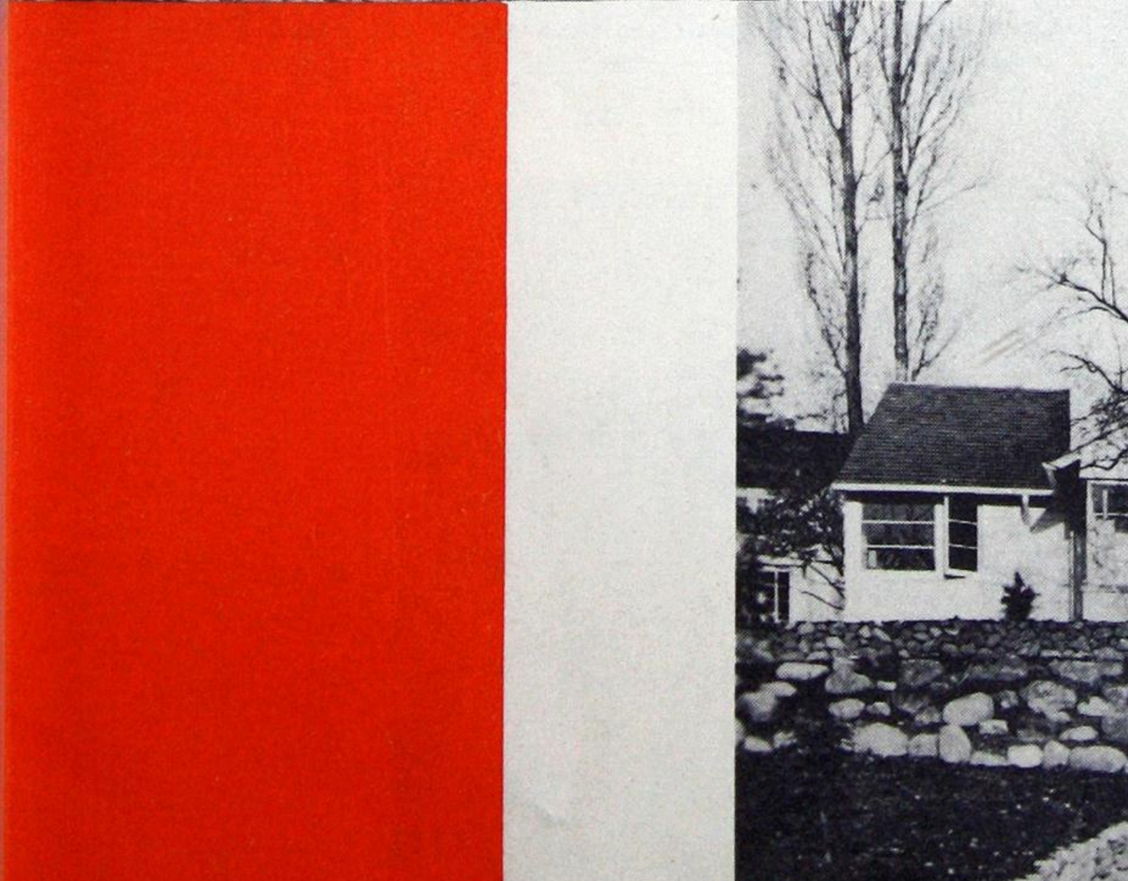


ARCHITECTS FIND UNLIMITED SCOPE IN DESIGNING HOUSES OF SOLID CEDAR

TYPICAL of many interesting developments in solid cedar construction are the houses shown on these two pages. Leading Vancouver architects, such as W. H. Birmingham, R. R. McKee, J. S. Porter, C. E. Pratt, D. C. Simpson and C. B. K. Van Norman are designing an increasing number of solid cedar houses of beauty and individuality.







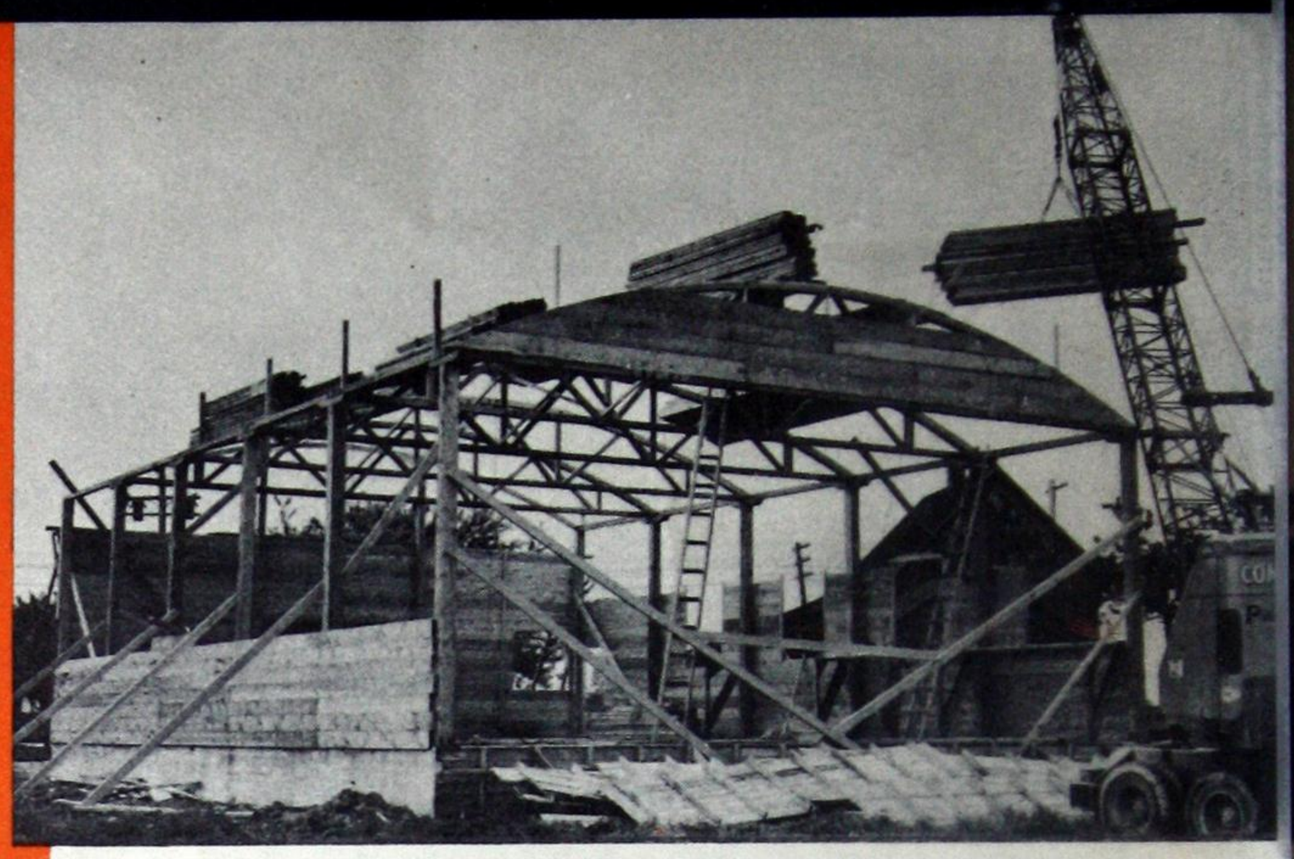
COMPARISON OF THEORETICAL HEAT TRANSMISSION COEFFICIENTS

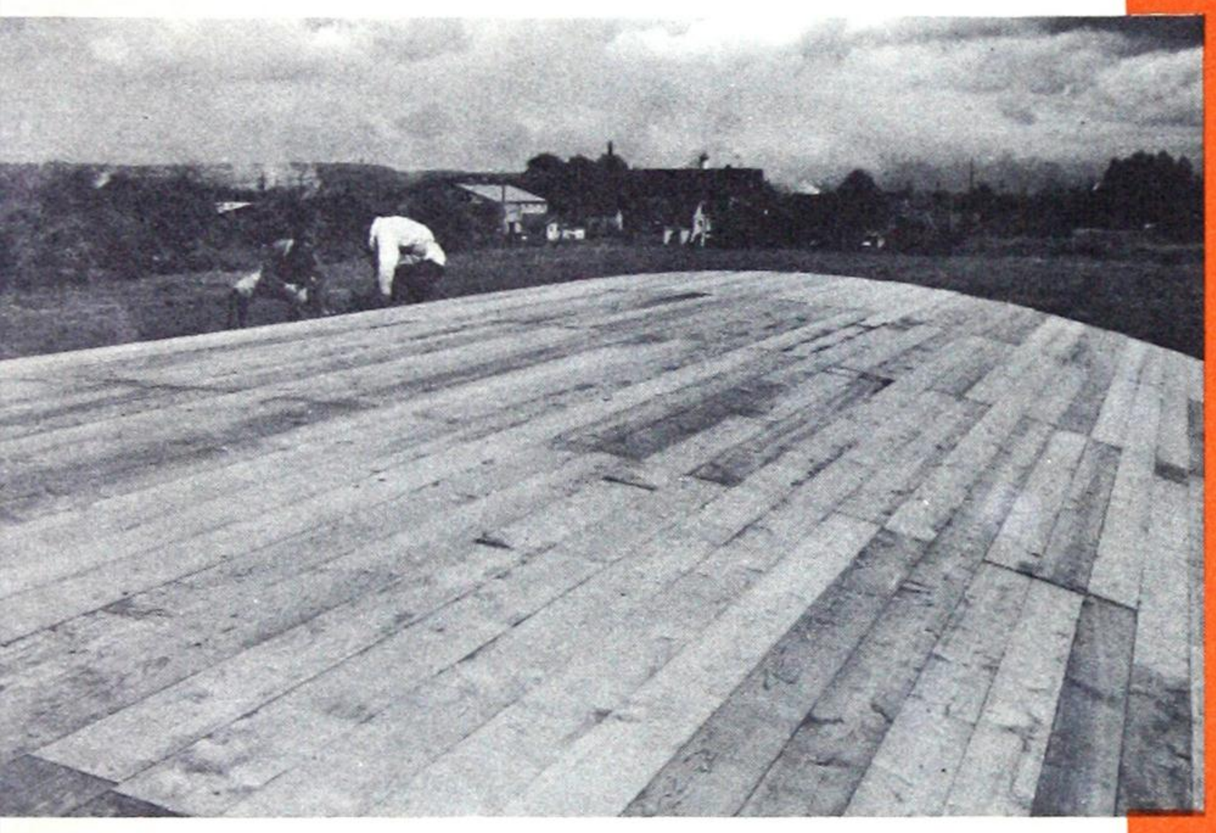
This data may be compared with the Central Mortgage and Housing required maximum U value of 0.15 for areas outside the lower mainland of British Columbia and Vancouver Island.

WALLS	U Value
Frame dwelling with wood siding, sheathing, lath and plaster:	
Uninsulated	0.244
Insulated—2″ rock wool	0.087
Stucco with wood sheathing, lath and plaster:	
Uninsulated	0.302
Insulated—2″ rock wool	0.093
Brick veneer, wood sheathing, lath and plaster:	
Uninsulated	0.270
Insulated—2″ rock wool	0.090
2″ cedar, 2″ x 2″ strapping, ¼″ plywood:	
Uninsulated	0.247
Insulated—aluminum foil	0.133
Insulated—2″ rock wool	0.094
Wood shingles, 3″ cedar, ¼″ plywood:	
Uninsulated	0.191
3″ cedar:	
Uninsulated	0.238
ROOFS	
Wood shingles, sheathing, lath and plaster ceiling:	
Uninsulated	0.278
Insulated—2″ rock wool	0.091
Asphalt shingles, sheathing, lath and plaster ceiling:	
Uninsulated	0.336
Insulated—2″ rock wool	0.097
3″ cedar with tar and gravel roofing:	
Uninsulated	0.228
FLOORS	
1″ wood sub-floor and wood flooring over crawl space:	
Uninsulated	0.297
3″ cedar and wood flooring over crawl space:	
Uninsulated	0.172

BUILDERS USE SOLID CEDAR FOR MANY TYPES OF BUILDINGS

The simplicity and speed of erection of solid cedar construction has captured the attention of builders for a wide range of utility structures. Such applications as garages, warehouses, tourist cabins, summer cottages, granaries, silos, implement sheds, portable hog pens, barns, chicken houses, etc., point the way to better buildings at lower cost.





STRUCTURAL WORKING FACTORS FOR No. 2 AND BTR. CEDAR PLANKS

WALLS

2" cedar with 2"x2" strapping 16" o.c.	— 8' column height
3" cedar	— 8' column height

ROOF

2" cedar	— 6' 10" span on low pitch or flat roof to support 40-lb. snow load.
3" cedar	— 11' span on low pitch or flat roof to support 40-lb. snow load.

FLOOR

2" cedar	— 6' span to support 40-lb. live load.
3" cedar	—10' span to support 40-lb. live load.

MODULE

An 8" width cedar plank with ½" x ¾" tongue has a face measure of 7" and should be used on a module of 7-1/64 inches.

SIZE

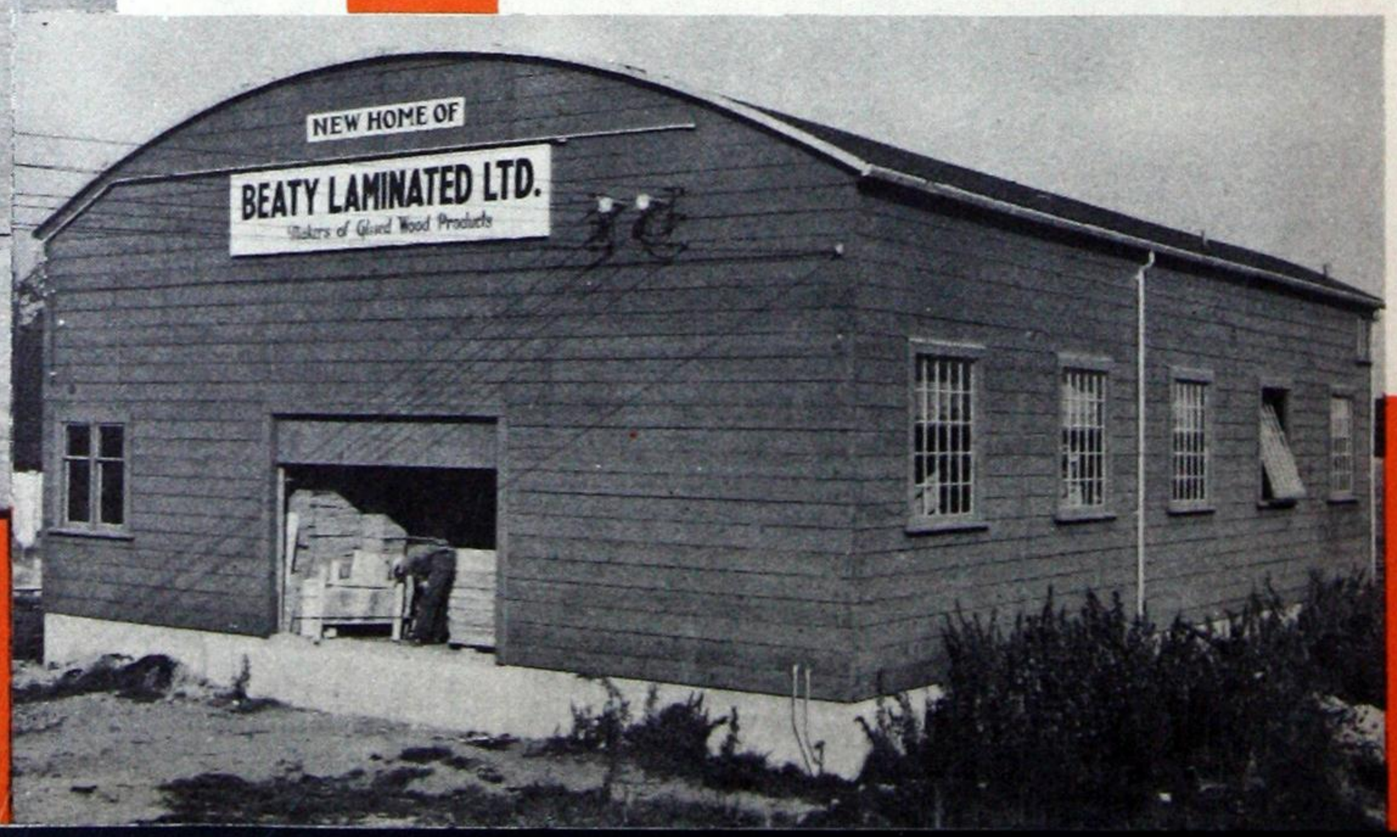
Nominal sizes of 4" to 12" in width and 2" to 4" in thickness can be obtained. Finished thicknesses are ⅜" less.

GRADE

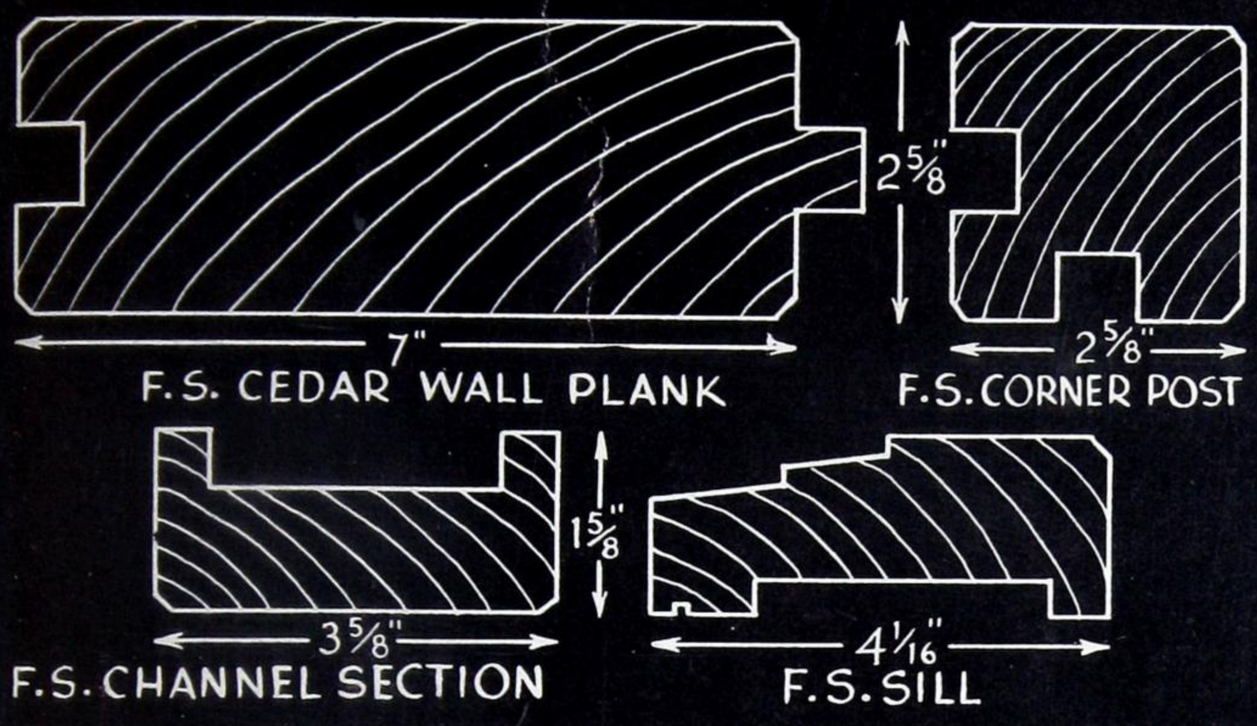
Straight or mixed grades of No. 1, No. 2 or No. 3 cedar planks are available.

SUPPLY

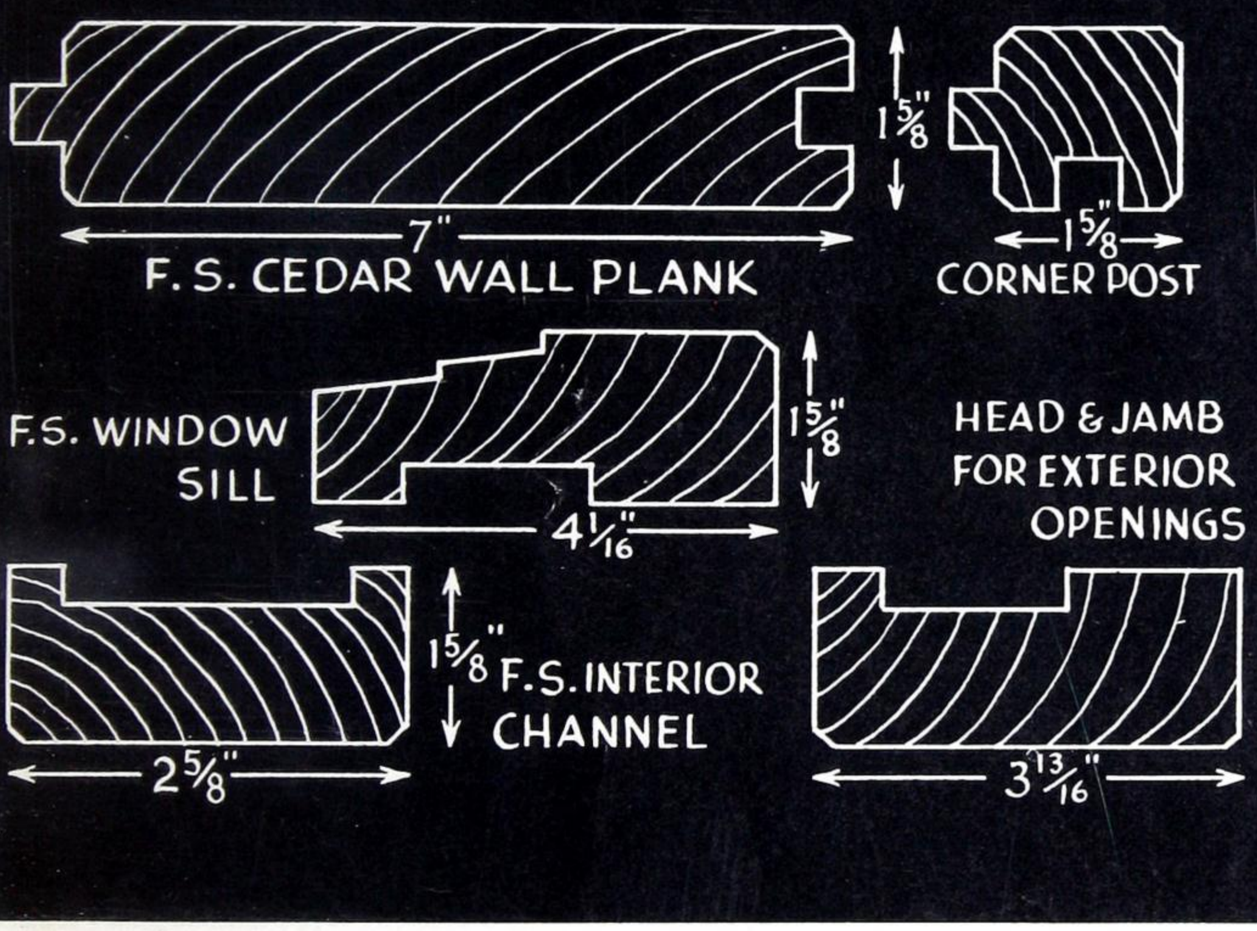
Cedar planks can be purchased from most retail lumber dealers at low cost.

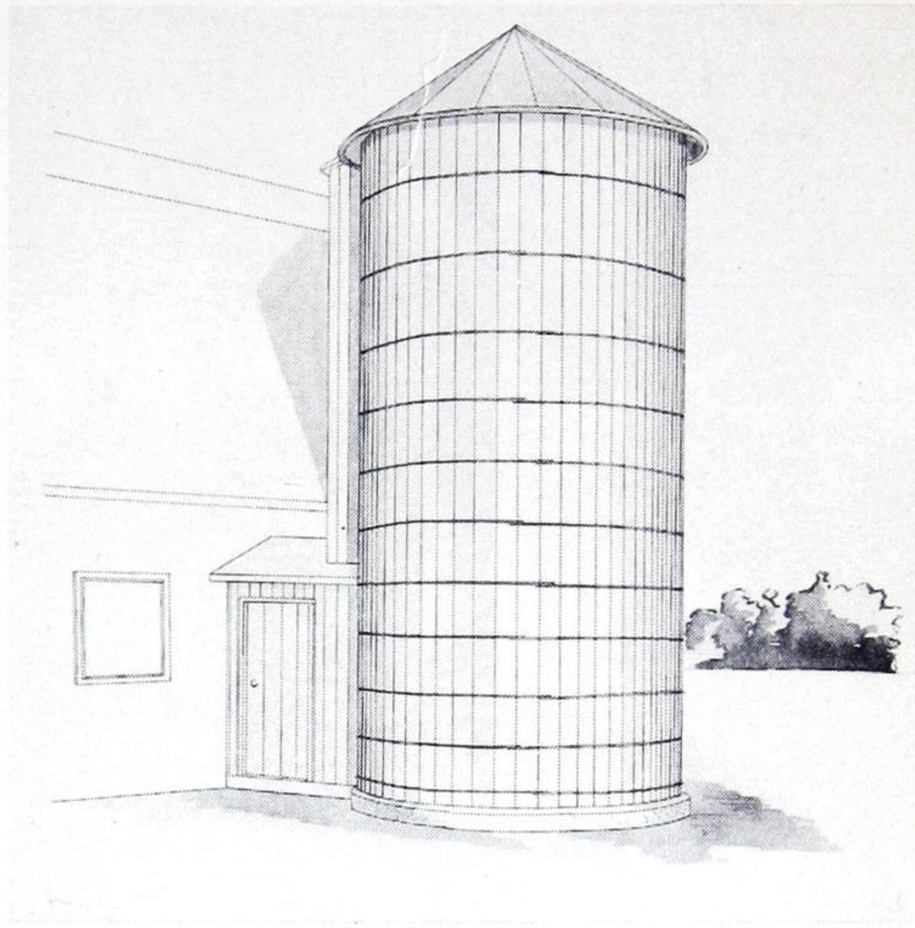


MILLWORK DETAILS FOR 3" CEDAR PLANK

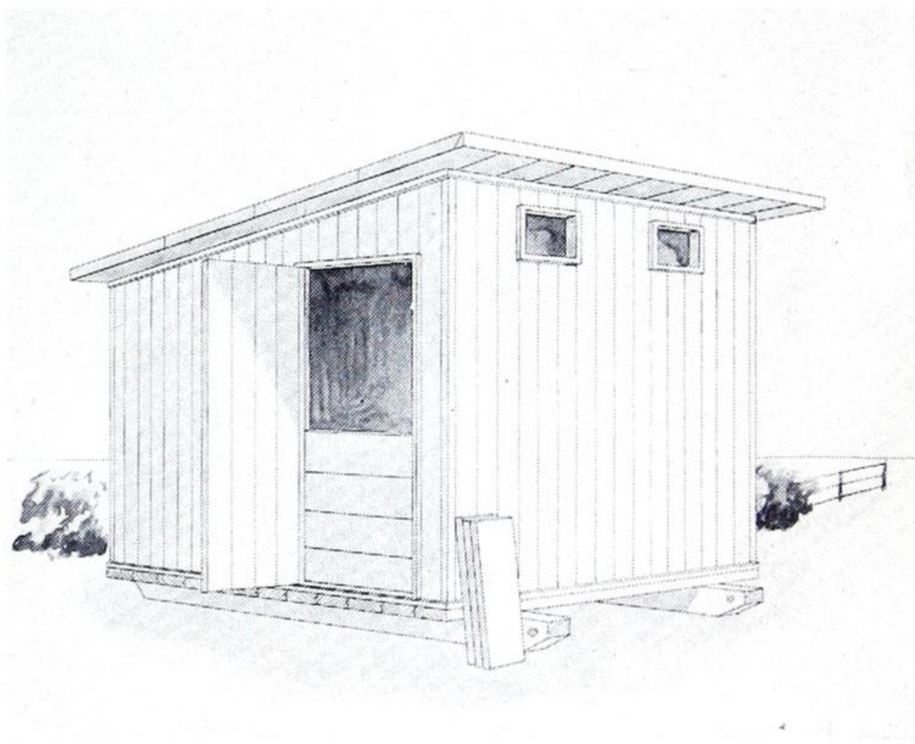


MILLWORK DETAILS FOR 2" CEDAR PLANK





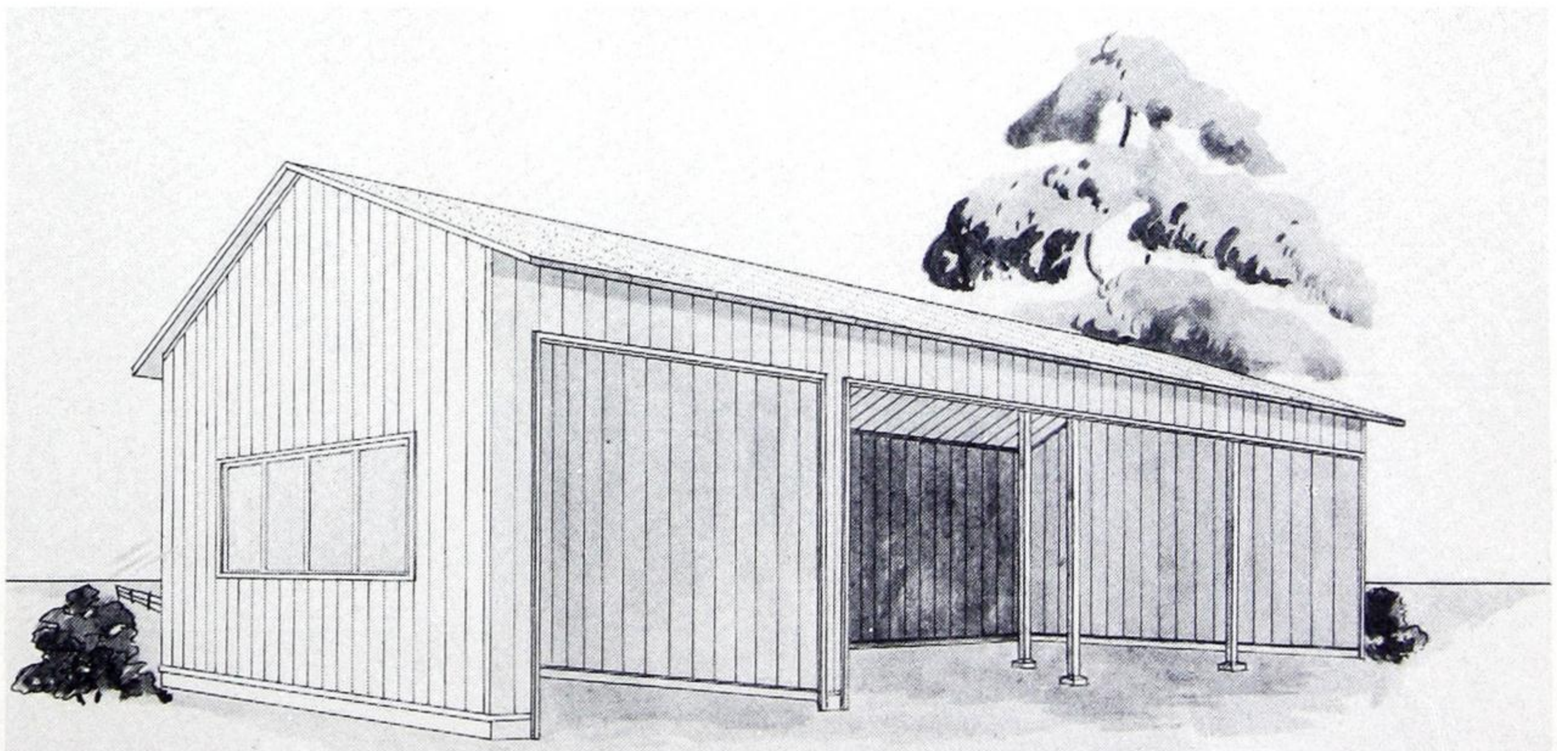
Silo



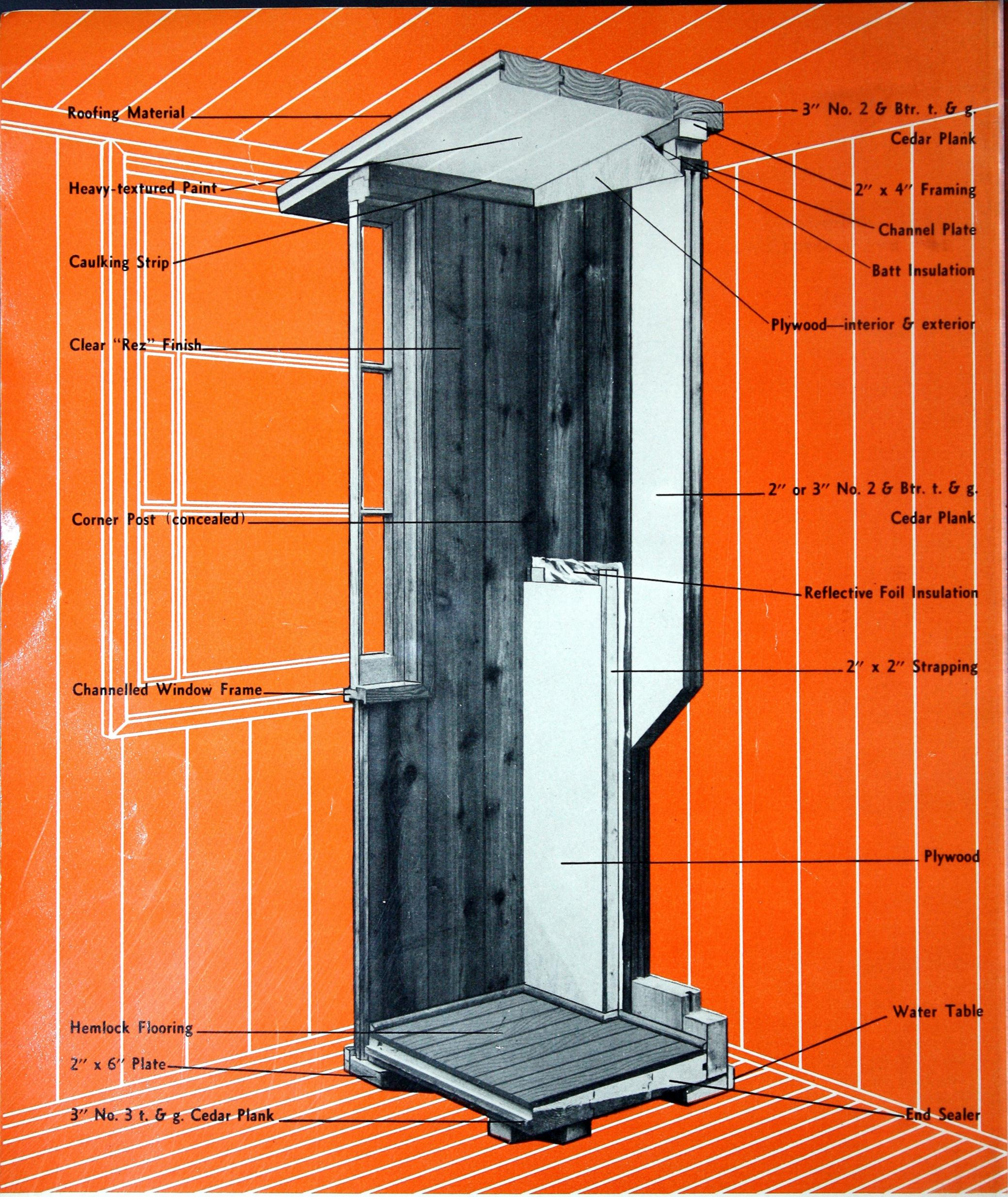
Granary

Job sheets are available upon request for a number of solid cedar farm buildings. Examples of three such buildings are shown on this page.

Write to B. C. Coast Woods, 837 West Hastings Street, Vancouver, B. C., for additional information on type of building needed.



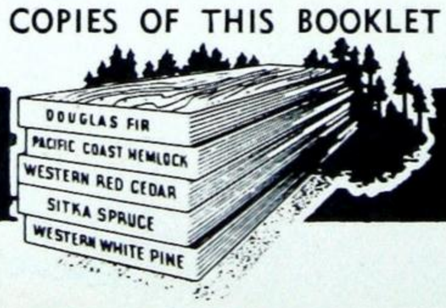
Implement Shed



ADDITIONAL COPIES OF THIS BOOKLET AVAILABLE WITHOUT CHARGE

LITHO'D IN CANADA

B.C. COAST WOODS



TRADE EXTENSION BUREAU

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